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From the Royal Astronomical Society

ASTRONOMICAL OBSERVATIONS

MADE AT

THE ROYAL OBSERVATORY, EDINBURGH.

BY

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AND HER MAJESTY'S ASTRONOMER FOR SCOTLAND.

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ERRATA.

VOL. I.—1834-5.

Pages xlvi. and li. The correction of 0^{s}·2 for the personal equation should have been *added* to, in place of being *subtracted* from, the time of observation on February 4, 1835. Hence the corrected time of observation at Edinburgh is 6^{h} 30^{m} 32^{s}·4, and the resulting Longitude, 12^{m} 43^{s}·3. The mean of all the results is not affected.

Page l, line 8 from bottom, *for* Immersion *read* Emersion.

Page 113, Nov. 15, δ Ursæ Minoris, *for* (*e*) *read* (*b*), *for* (*d*) *read* (*c*), *for* (*b*) *read* (*d*), and *for* (*c*) *read* (*e*).

VOL. II.—1836.

Page 9, Feb. 12, Jupiter I. & II. Limbs, the minutes should be 27 in place of 26.

INTRODUCTION.

I. *The Observatory and the Instruments.*

The Royal Observatory at Edinburgh is situate on the Calton Hill, in the north-eastern quarter of the city. From the astronomical observations which are detailed in Volume I, its Latitude has been found to be 55° 57′ 23″·2 North, and Longitude $0^h\ 12^m\ 43^s{\cdot}1$ of time, or 3° 10′ 46″·5 of space West of the meridian of Greenwich. From a levelling performed several years ago by JAMES JARDINE, Esq. Civil Engineer, and a series of observations of the tides in the vicinity of Leith, made for the period of two months under his superintendence, he found, that the upper surface of the square plinth of the base of the central column of the Observatory, on which the Altitude and Azimuth Circle is placed, is 349·16 feet above the mean level of the sea in the Frith of Forth at Leith. The floor of the Observatory is 9 inches lower than the surface of the plinth.

The principal apartment in the Observatory is that in which the Transit-Telescope and Mural Circle are placed. It is 44 feet in length from east to west; 22 feet in breadth from north to south; and 11 feet in height; but over each Instrument the ridge of the sloping roof is 18 feet above the floor. The Transit-Telescope occupies the eastern division of the apartment, the Mural Circle the western.

The principal astronomical instruments in the Observatory are, a Transit-Instrument by REPSOLD and SON of Hamburg, a Mural Circle by TROUGHTON and SIMMS of London, an Altitude and Azimuth Circle by the same artists, and a Clock by BRYSON of Edinburgh.

The Transit Instrument is 8·3 feet in focal length. The object-glass, made by FRAUNHOFER and UTZSCHNEIDER of Munich, is 6·4 inches in diameter. The axis is 3·8 feet in length. The pivots are of steel, turning in Y's of brass, which have the usual adjustments for horizontal and vertical motion. Counterpoises placed on the longer arms of levers, the fulcra of which are on the piers, act on the ends of the axis by means of friction-wheels, and allow only a small part of the weight of the instrument to press on the Y's. Each pier is a single block of sandstone from Craigleith Quarry, and is founded on the rock of which the Calton Hill is composed. The axis is 7·1 feet above the floor.

The process of reversing the instrument is conveniently and safely performed by means of an apparatus, which allows the counterpoises to act before the pivots touch the Y's, so that no additional pressure is exerted upon them, and the instrument is replaced without the least collision.

Five vertical Wires and one horizontal Wire of spider-thread are placed in the eye-end of the telescope, besides other two vertical Wires, which are fixed to the same frame, and move together by means of a micrometer screw.

The Telescope has four eye-glasses, whose magnifying powers are 100, 136, 200, and 300; but 200 is the power commonly used. For faint objects, the power 136 is applied. The whole aperture of the object-glass is employed, except in observations of the Sun, when it is contracted to 2·5 inches, and the instrument screened from the solar rays.

A spirit-level determines the inclination of the axis to the horizon. It is suspended from the pivots, and the divisions are marked on the glass tube. Each division is 0·07 of an inch, and by fixing the level to the Mural Circle, it was ascertained that each division is equivalent to 1″·14 of space. Each value of the inclination of the axis, recorded in the Table, p. 64, is the mean of two separate determinations, made when the telescope is in the horizontal position; the one when the object-glass is pointed to the north, the other when pointed to the south. From all the observations which have been made preceding February 1838, the difference between the values of the inclination found in the two positions appears to be insensible. From a mean of three separate sets of observations made in February 1837, it appeared, that when the illuminated end of the axis was east, and the telescope pointed to different degrees of altitude, the inclination of the axis exhibited by the level exceeded the mean of the values, found when the telescope was in the two horizontal positions, by the following quantities:

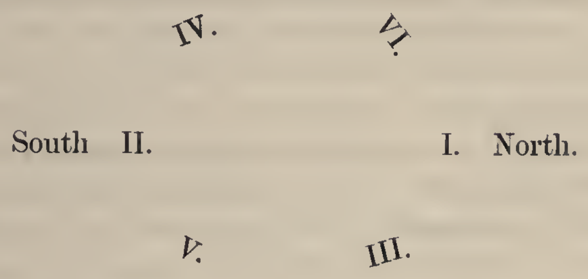
Altitude of object-end.	West end of Axis more high.
°	″
0……North.	+0·18
20……〰〰	+0·24
40……〰〰	+0·13
60……〰〰	−0·15
60……South.	−0·73
40……〰〰	−0·34
20……〰〰	+0·01
0……〰〰	−0·18

and that the mean of the inclinations in the horizontal positions exceeded the mean of all the inclinations, found at the various degrees of altitude to which the telescope was pointed, by +0″·06. From all the observations, made at reversing the instrument previous to May 1837, the difference of inclinations before and after reversing was found to be insensible.

The Mural Circle is similar to those of the Royal Observatory at Greenwich. It is fixed to a pier composed of seven blocks of Craigleith sandstone, founded on the rock.

The diameter of the Circle, and focal length of the Telescope, is 6 feet, and the aperture of the object-glass 3·7 inches. The conical axis of the Circle, which passes through the pier, and moves in a collar, is 4·3 feet in length; and levers with counterpoises support a great part of the weight of the instrument. The limb is divided to every five minutes by lines cut upon a belt of gold; and the divisions are read and subdivided by six Microscopes, fixed to the pier, at the distance of 60° from each other, the line joining two of these Miscroscopes, and passing through the centre of the circle, being horizontal.

The Microscopes are distinguished by the numerals I, II, III, IV, V, and VI, and their order is as follows, the Circle being on the eastern face of the pier:



so that Microscopes I. and II, III. and IV, V. and VI, are diametrically opposite each other. The reading of Microscope III. is 60° less than the reading of Microscope I; the reading of Microscope V, 120° less, &c.

The Telescope has one fixed horizontal Wire, one moveable horizontal Wire with a micrometer-screw, five vertical wires, and three eye-glasses, magnifying 74, 98, and 154 times. The highest power is generally used. The whole aperture of the object-glass is always employed. In observing the Sun, the whole instrument, except the object-glass, is screened from his rays. The centre of the circle is 7·4 feet above the floor.

The divisions of the Mural Circle were examined in the manner explained in Volume I, and were found to be very accurate, the probable error of an angle measured with the six Microscopes appearing to be about 0″·2.

The centres of the Mural Circle, Transit-Instrument, and Altitude and Azimuth Circle are exactly in the same parallel of latitude; the Transit being to the East, the Circle to the West, and the Altitude and Azimuth Circle in the Dome mid-way between them. The distance between the centre of the Transit and the Telescope of the Mural Circle is 32·3 feet.

The meridian openings for each instrument are 18 inches wide, and are well adapted for their purpose. Each instrument has a clear view of the semi-meridian.

The Altitude and Azimuth Circle is placed upon the top of the central column, under a revolving hemispherical Dome, 13 feet in diameter. The column is composed of twelve blocks of Craigleith sandstone, and forms the frustum of a cone, 6·8 feet in diameter at the bottom, 2 feet at the top, 20 feet in height, and rising from a square base 6·8 feet in the side, founded on the rock.

The Altitude Circle is 3 feet in diameter, the Azimuth Circle 2 feet; the Telescope is 51 inches in focal length, and the object-glass 3·5 inches in diameter. The vertical axis of rotation descends in a cavity made to receive it within the column. Each circle is divided to 5 minutes, and the subdivisions are given by two opposite microscopes. The instrument is provided with a plumb-line, and two spirit-levels, for ascertaining the verticality of the perpendicular axis and the horizontality of the cross axis.

The Dome commands a view of the whole hemisphere, with a few exceptions of no great extent, occasioned by the intervention of Arthur's Seat, Salisbury Crags, Nelson's and the National Monument. In the beginning of the year when the Altitude and Azimuth Circle could not be used, owing to the repairs of the Dome, a few observations of Eclipses of Jupiter's Satellites and Lunar Occultations of Fixed Stars, were made with a portable Achromatic Telescope, belonging to the Astronomical Institution of Edinburgh, from which it was occasionally borrowed. This telescope is by TULLEY, is 49 inches in focal length, and 3·5 inches aperture; and is furnished with four eye-glasses, magnifying from 50 to 140 times.

The Clock is fixed to a stone pillar placed beside the Transit-Instrument. It has a dead-beat escapement and mercurial compensation pendulum.

The observations made with the meridian Instruments have been chiefly directed to the determination of the places of the Sun and Moon, the Planets (particularly when near their oppositions to the Sun), the principal Stars for ascertaining the error and rate of the Clock and the position of the instruments, Moon-culminating Stars, and a few minor Stars, occultations of which had been observed, or which had been compared with the Comet of HALLEY.

II. *Observations made with the Transit-Instrument.*

Nearly the whole of these observations have been made by the Assistant-Astronomer, Mr ALEXANDER WALLACE, M.A. Those not made by him were made by myself, and they are indicated by the mark † annexed to them in the last column of the Observations.

From the transits of eight Stars, situate between the tropics, observed on March 14, and 16, 1835, at Wires I. and V, by myself, and at Wires II, III, and IV. by Mr Wallace, it appeared that his times of estimating transits were 0^{s}·20 later than mine; and from similar observations of ten Stars made on May 1, 2, and 4, 1837, it appeared that his times were 0^{s}·22 later than mine. Hence, to reduce the times of transit observed by him to those which would have been observed by me, 0^{s}·21 is to be subtracted from the former, and the same quantity added algebraically to the correction of the Clock obtained from his observations, to give the correction which would have been obtained from mine. This personal equation has not been applied in any instance, as care has always been taken not to mix the observations of one observer with those of the other, in determining the rate of the Clock, or the Right Ascension of an unknown object by comparison with the Right Ascensions of known Stars, except in the case of α and δ *Ursæ Minoris*, where the errors of observation are greater than the equation. Following this rule, the corrections of the Clock deduced from my observations are distinguished by the mark † annexed to them in the Table, pp. 70–72.

The Transit-Instrument was occasionally reversed, as mentioned in the Observations, and, between two consecutive reversings, the instrument was used in one position of the axis, which is indicated with respect to its illuminated end being east or west, in the Table of Error of Collimation, p. 64.

The observations made with the Micrometer Wires of the Transit are distinguished by having "*Microm.*" prefixed in the column of "Object Observed." The Micrometer Wires have generally been kept at equal distances on each side of Wire III, so that this Wire bisected the interval between them. In this position, the observations made with the Micrometer Wire preceding Wire III, are entered in the column marked "Wire II;" and those made with the Wire following Wire III, in the column marked "Wire IV." In other positions of the Micrometer Wires, their distances from Wire III, expressed in revolutions and decimal parts, are specified in the Notes.

The distances of the Wires from the middle Wire, or Wire III, were determined from the observations of α and δ *Ursæ Minoris*, made between January 1, and March 31; and reduced to the Equator, they are as follows:

Wire I.	26^{s}·608	Sidereal Time,
II.	13·307	
IV.	13·319	
V.	26·576	

the Wires being numbered for observations above the Pole, in that position of the instrument when the illuminated end of the axis is West. These quantities have been adopted for reducing the observations made preceding June 30, to Wire III. The observations made subsequent to that date have been reduced to the mean or middle point of the five fixed Wires. The distances of the Wires from this mean or middle point, reduced to the Equator, were determined from the observations of α, δ and λ *Ursæ Minoris*, made between July 1, and September 30, to be as follows:

Wire I.	$+26^{s}{\cdot}608$	Sidereal Time,
II.	$+13{\cdot}295$	
III.	$-0{\cdot}006$	
IV.	$-13{\cdot}320$	
V.	$-26{\cdot}576$	

the Wires being numbered as before.

The interval between the two Micrometer Wires was determined from the same observations. During the period preceding June 30, when it is not otherwise mentioned in the notes, their distance from Wire III. was 6·636 seconds of sidereal time, reduced to the Equator, the one being placed before and the other after that Wire; and during the period subsequent to that date, their distances from the mean of the fixed Wires (when not otherwise mentioned) were

$6^{s}{\cdot}626$	Wire preceding Wire III;
$6{\cdot}638$	Wire following Wire III;

the illuminated end of the Axis being west, and the observations being above the Pole. For the other position of the Axis, and for observations below the Pole, these quantities are to be transposed in the usual manner.

The value of one revolution of the Micrometer Wires in sidereal time, reduced to the Equator, was determined from observations of the Polar Stars to be as follows:

February 17,	$2^{s}{\cdot}2078$;
April 21,	$2{\cdot}2072$;
August 9,	$2{\cdot}2065$;
November 30,	$2{\cdot}2063$;

which quantities respectively were used in reducing the observations of α *Ursæ Minoris* made on these dates. The quantity $2^{s}{\cdot}2065$ was adopted in reducing the observation of October 24.

In computing the reductions to Wire III. and the mean of the Wires, of observations of α and δ *Ursæ Minoris*, the rigorous formula,

$$\sin \textit{reduction} = \sin \textit{equatorial interval} \times \sec \textit{Declination},$$

was employed. For the other Stars, the formula,

$$\textit{reduction} = \textit{equatorial interval} \times \sec \textit{Declination}.$$

For the Sun and Planets, the motion in Right Ascension has been allowed for: in the case of the Moon, BESSEL'S method in the *Tabulæ Regiomontanæ* has been adopted.

In the original manuscript observations, the minutes of the transits over all the Wires observed for Stars near the Pole, and over the last Wire observed for other bodies, and the hours of the column of "Reduction to Wire III," and "Reduction to Mean of Wires," are entered, but they have been omitted in printing, to save space.

The column entitled "Correction of Instrument," contains the corrections of the observed transits, arising from the deviation of the instrument from the meridian. The column entitled "Correction of Clock observed," contains the corrections of the Clock obtained from the observations of the standard Stars; and that entitled "Correction of Clock interpolated," contains the corrections of the Clock interpolated from the mean corrections given by observations. The computation of these three columns will be explained presently. The sign +, prefixed to the correction of the Clock, denotes that the Clock is slow; the sign —, that it is fast.

The sum of the numbers in the columns, entitled "Reduction to Wire III," or "Reduction to Mean of Wires," "Correction of Instrument," "Correction of Clock interpolated," is the "Apparent Right Ascension observed," given in the last column bearing that title.

The formula employed for correcting the observed transits, for the deviation of the instrument from the meridian, is that of BESSEL,

$$Correction = m + n \tan Declination + c \sec Declination,$$

m and n denoting the eastern deviation from the meridian of the perpendicular plane to the axis of rotation at the Equator and elevated Pole, and c, the error of collimation *minus* $0^s{\cdot}012$ for the diurnal aberration, c being positive when the line of collimation is to the East of the optical axis, and m, n, and c being expressed in time.

The value of c is determined from observations of the transits of α *Ursæ Minoris* over the Wires, made immediately before and after reversing the Instrument, as shewn in the first Table of p. 64, where t denotes the reduced time of transit over Wire III, or the Mean of the Wires, in the western position of the illuminated end of the axis, and t' the reduced time of transit in the eastern position; and of the double signs prefixed to the values of c, the upper applies to the western position of the illuminated end, and the lower to the eastern. The errors of collimation, or values of c, employed in the reductions for the various periods, are given in the succeeding Table.

The value of n is determined by comparing the observed transits of α and δ *Ursæ Minoris* at their culminations on different sides of the Pole, and, when these were not obtained, by comparing their observed transits, and those of one or two of the standard Stars employed for finding the error of the Clock. Let A and A' denote the Right Ascensions of two Stars, the first being near the Pole, D and D' their Declinations (for the transits *sub polo* $A + 12$ and $180° - D$ being used), and T, T' the observed times of transit over the middle Wire, or mean of Wires, then,

$$\frac{(A-A')-(T-T')}{\tan D - \tan D'} = n + c\,\frac{\sin\frac{1}{2}(D+D')}{\cos\frac{1}{2}(D-D')},$$

T—T' being corrected for the rate of the Clock. The value of c being known, n is determined from this expression. The mean Right Ascensions of the standard Stars which have been adopted are those of Bessel in the *Tabulæ Regiomontanæ*. The mean Right Ascensions of the polar Stars adopted during the first six months of the year are also those of Bessel in the *Tabulæ Regiomontanæ*. During the latter six months, the adopted Right Ascensions of these Stars for the beginning of the year are as follows, being the results of the Cambridge Observations for 1830–4; viz.

	h.	m.	s.
α Ursæ Minoris	1	1	5·44
δ Ursæ Minoris	18	25	12·17.

The corrections for the reduction of the mean to the apparent places have been taken from the Nautical Almanac. The computation of n is exhibited in the Table, pp. 65–70. A mean of the different values of n is adopted for a period, during which it appears to have remained constant.

The value of m may be obtained from the formula,

$$m = -\, n \tan \mathit{Latitude} + b \sec \mathit{Latitude},$$

b denoting the elevation of the west end of the axis, expressed in time. The values of b in space, found by applying the spirit-level, are contained in the Table, p. 64.

The values of n and c employed in the reductions, are exhibited in the Tables, p. 70 and 64. In the column of " Correction of Instrument" the terms,

$$-\, n \tan \mathit{Latitude} + n \tan \mathit{Declination} + c \sec \mathit{Declination},$$

have been inserted. The remaining term of the correction, $b \sec$ *Latitude*, being common to every Star, and producing no effect upon the difference of Right Ascensions, is combined with the correction of the Clock. This term is contained in the Table p. 64, under the title " Correction of Times of Transit," and for times between the dates there mentioned, it is assumed to have varied as the time.

The Correction of the Instrument for the Moon, calculated in the same manner as for a Star in the same parallel, has been multiplied by the factor $\frac{27}{26}$ for the purpose of containing the effect of her motion in Right Ascension, and the product inserted under " Correction of Instrument."

The Correction of the Clock is determined from the observed transits of the standard Stars in the *Tabulæ Regiomontanæ* (excluding β *Virginis*, α¹ *Libræ*, α¹ *Capricorni*, and α *Piscis Australis*), the "Correction of Instrument" being previously applied, compared with their apparent Right Ascensions, obtained from the mean positions in the *Tabulæ Regiomontanæ*, and the reduction of mean to apparent places contained in the Nautical Almanac. The corrections of the Clock thus determined are contained in the column of the Observations entitled "Correction of Clock observed." When (as is generally the case) several Stars have been observed for the correction of the Clock on the same day, or within the same period of 24 hours, they are comprised in one group, and the mean of the corrections of the Clock, given by the observations, is held to be the correction, corresponding to the mean of the times. The beginning and end of each group are indicated by the horizontal lines in the column of "Correction of Clock observed." These means, and the corrections obtained from single Stars, when only one Star has been obtained, with the corresponding times, are contained in the Table pp. 70–72. For intermediate times, the corrections are deduced from those immediately preceding and following by simple interpolation, and are entered in the column of the observations bearing the title "Correction of Clock interpolated." As already mentioned, the quantity, b sec *Latitude*, is comprised in the Correction of the Clock. Therefore, when the true sidereal time is required, the value of b sec *Latitude*, or the Correction of times of Transit, taken from the Table, p. 64, must be subtracted algebraically from the correction of the Clock.

When the correction of the Clock has been obtained from the observation of one Star only, the column of "Apparent Right Ascension observed" in the observations is not filled up for that Star, as it would reproduce the Right Ascension assumed for determining the Clock-correction. For a similar reason, when the elements for the correction of the instrument have been deduced, either entirely, or nearly so, from observations of one of the two Stars, α and δ *Ursæ Minoris*, (the observations above and below the Pole being considered to be of different stars), this column is not filled up for that Star.

The observed apparent Right Ascensions of the Stars, contained in the last column of the Observations, are reduced to mean Right Ascensions at the commencement of 1836, assuming the values of precision, nutation, aberration, and proper motion, as in the Nautical Almanac and Astronomical Society's Catalogue. The individual results are contained in the Table pp. 72–82; and the mean results are given in the Catalogue pp. 118–121. Bessel's Right Ascensions of the standard Stars from the *Tabulæ Regiomontanæ* having been adopted for determining the correction of the Clock, the zero point is the position of the Equinox assumed in these Tables.

III. *Observations made with the Mural Circle.*

All the observations with the Mural Circle were made by myself.

No observations were, during this year, made by reflection.

The equatorial interval betwixt two adjoining vertical Wires is 18·1 seconds of time, as determined from observations of *α Ursæ Minoris*. The moveable wire is placed at a distance of 7″ nearly from the fixed wire, and the object observed bisects the space between them. This mode has been found better adapted for faint objects, and Stars observed by day, than bisecting them by a wire.

The observations were read off from the sets of divisions either immediately preceding or following the zero point of Microscope I: those observations, to which asterisks are affixed in the column of "Object observed," were read off from the more remote sets; all the others, from the nearest. The mean values of the runs of the six Microscopes for the different periods of the year are given in the Table p. 106; being the means of those found from sets of readings, made at the beginning and end of each period.

The mean of the readings of the six Microscopes being taken, let it be denoted by m, when the divisions precede the zero point of Microscope I, and by m', when the divisions follow this point, and let r denote the mean value of the runs of the six Microscopes taken from the Table. Then to obtain the "Mean Reading of the Circle," as given in the column bearing that title, to the degrees and minutes of the preceding set of divisions there is to be added the quantity,

$$\frac{300\,m}{r}, \text{ or, } \frac{300\,(m' + r - 300)}{r}.$$

A few observations were read off with two and three equidistant Microscopes, but were reduced to the mean reading of the six, by applying the differences mentioned in the Notes, which were found from the observations made about the same time, and in the same portion of the meridian.

The degrees and minutes entered under "Mean Reading of Circle," are those which were under Microscope I. In the original manuscript observations, they are inserted in its column, but are omitted in printing to save space.

The observations were always made at the transit of the object, or of its centre in the case of the Sun, Moon, or a Planet, over Wire III, unless otherwise mentioned, the necessary information being given in the Notes for determining the horary angle, and thence the reduction to the meridian. The times of the observations there given preceding August 4, are those indicated by the Transit-Clock. Since that time the times of observation are given as indicated by an Assistant-Clock placed beside the Circle, its rate appearing to be sufficiently accurate for reducing the Circle-observations. The corrections to be applied to this Clock to obtain the true sidereal time are given in the Table p. 106. Transits over Wire III. were frequently observed, for the purpose of ascertaining its deviation from the meridian at various points; and it appeared that, throughout the whole meridian, Wire III. was to the west of it by the following quantities:

	Declination.	Deviation.
	° °	s.
From	−30 to +35	4 of time.
At	+50° ′	5 〃
	+64	8 〃
	+75	12 〃
	+88 26	107 〃
	+88 26 S.P.	106 〃
	+87 16 S.P.	60 〃
	+56 S.P.	5 〃

The transits over Wire III. above the Pole, being later than the transits over the meridian, and, under the Pole, earlier.

The reduction to the meridian is computed by the formula,

$$\frac{225''}{4} \sin 1'' \sin 2\,D \times t^2,$$

D denoting the Declination of the object, and t its horary angle, expressed in seconds of time, and $\sin 2\,D$ being negative for objects south of the Equator or below the Pole. To the reduction for the Sun, Moon, and Planets, the change of declination during the interval between the time of observation and the meridian transit is applied; and as the deviation of Wire III. from the meridian makes a small reduction necessary for observations of the Moon, and the Stars near the Pole, made at that Wire, it is accordingly given.

The Refractions are computed by Mr IVORY's Tables in the Philosophical Transactions for 1823, the zenith distance being made equal to the difference between the mean reading of the Circle and the position of the Equatorial point diminished by the Latitude. The Exterior Thermometer, by ADIE of Edinburgh, is enclosed within a glass-tube, open at top and bottom, for the free circulation of air, and is placed at a northern window of the Observatory, 5 inches from the wall, and 8·2 feet above the ground. The Barometer, also by ADIE, has a cistern of the syphon construction, and therefore requires no correction for difference of capacities or capillarity. It is fixed to a wooden pillar beside the Circle, and the attached Thermometer is fixed to the Barometer-frame. The zero point of the Barometer is 351·1 feet above the mean level of the sea.

To the mean reading of the Circle, the reduction to the meridian and refraction are applied, according to their signs, and the result is the reduced reading of the Circle, or the reading for the meridian observation, clear of the effect of refraction. The reduced readings are converted into Declinations by the following process.

The mean Declinations of the principal Stars for the beginning of 1835, derived from the observations of 1834–5, were reduced to the beginning of 1836 by the application of the precessions and proper motions for one year; and, adopting the corrections of the Nautical Almanac, their apparent Declinations were obtained. To the reduced readings of the observations of these Stars the apparent Declinations are applied, and the result is the position of the Equatorial point on the divisions of the Circle. A mean of the several values obtained during a period of time, when it appears that the position of this point remained without sensible change, is held to be the true position during that period. The determination of the position of the Equatorial point is contained in the Tables pp. 107–111. The " Apparent Declination observed," given in the last column of the observations, is the difference between the reduced reading of the Circle and the position of the Equatorial point. In the case of the Sun, Moon, or a Planet, the parallax in declination and semi-diameter (when a limb has been observed), have still to be applied, in order to obtain the geocentric Declination of the centre.

The mean Declinations of the Stars for the beginning of 1836, adopted in determining the position of the Equatorial point, are as follows:

STAR.	Mean Declination 1836·0.	STAR.	Mean Declination 1836·0.	STAR.	Mean Declination 1836·0.
	° ′ ″		° ′ ″		° ′ ″
α Ursæ Minoris	+88 26 4·8	α Geminorum fol.	+32 14 25·6	α Aquilæ	+ 8 26 26·4
δ Ursæ Minoris	86 35 20·9	β Tauri	28 27 40·8	α Orionis	7 22 10·7
β Ursæ Minoris	74 49 31·5	β Geminorum	28 24 56·1	α Serpentis	6 56 47·3
β Cephei	69 50 30·7	α Andromedæ	28 11 5·8	β Aquilæ	6 0 8·8
α Ursæ Majoris	62 38 4·3	α Coronæ borealis	27 16 15·2	α Canis Minoris	5 38 22·1
α Cephei	61 53 33·8	α Arietis	22 41 0·0	α Ceti	3 26 30·3
ζ Ursæ Majoris	55 47 0·7	α Bootis	20 2 21·8	α Aquarii	− 1 6 48·8
α Cassiopeæ	55 38 12·7	α Tauri	16 10 23·0	α Hydræ	7 57 5·7
γ Ursæ Majoris	54 36 23·6	β Leonis	15 29 18·9	β Orionis	8 23 49·1
γ Draconis	51 30 40·0	α Herculis	14 34 58·1	α Virginis	10 18 10·4
η Ursæ Majoris	50 8 3·0	α Pegasi	14 19 27·7	α^2 Capricorni	13 2 50·8
α Persei	49 16 15·4	γ Pegasi	14 16 17·5	α^2 Libræ	15 21 20·1
α Aurigæ	45 49 20·0	α Leonis	12 45 56·6	α Canis Majoris	16 29 49·4
α Cygni	44 41 51·3	α Ophiuchi	12 41 6·4		
α Lyræ	38 38 6·7	γ Aquilæ	10 13 7·8		

The apparent Declinations of the Stars are converted into mean Declinations for the beginning of 1836, by the application of the corrections for precession, nutation, aberration, and proper motion, taken from the elements and subsidiary Tables given in the Nautical Almanac and Astronomical Society's Catalogue;

and the mean result for each Star is inserted in the Catalogue, pp. 118–121, the determinations above and below the Pole, being separate. The individual results are contained in the Table pp. 112–116.

IV. *Reduced Observations of the Sun, Moon, and Planets.*

The Tables pp. 124–139 contain comparisons of the Right Ascensions and Declinations of the Sun, Moon, and Planets, deduced from the observations, with the computed places in the Nautical Almanac.

In these comparisons, the Longitude of the Observatory is assumed to be $12^{m}\ 43^{s}{\cdot}6$ West, as determined by the Trigonometrical Survey of Britain.

When both limbs of the Sun or a Planet have been observed with the Transit-Instrument, the mean of their Right Ascensions is taken for the Right Ascension of the centre.

When only one limb of the Sun or a Planet has been observed, the Right Ascension of the centre has been determined, by applying the semi-diameter in Right Ascension. This, for the Sun, has been taken from the Nautical Almanac, and in the case of a Planet, from the Meridian Ephemeris of the Royal Astronomical Society.

The observed Right Ascensions of the Sun's centre are compared with the values for apparent noon at Edinburgh, computed from the Nautical Almanac.

The observed Right Ascensions of the Planets' centres are compared with the values for the transits over the meridian of Edinburgh, computed from the Meridian Ephemeris.

The observed Right Ascensions of the Moon's limbs (corrected in two instances for defect of illuminated disc, as mentioned in the Notes to the Observations), are compared with the values for the transits over the meridian of Edinburgh, computed from the list of Moon-culminating Stars in the Nautical Almanac.

The parallaxes in declination of the Sun, Moon, and Planets are computed on the supposition that the ratio of the Earth's axes is = 299 : 300, whence the reduced or geocentric Latitude is 55° 46′ 43″, and the logarithm of the Earth's radius, 9·999008. For the Moon, the rigorous formula is adopted, viz.

$$\sin \textit{parallax in declination} = r \times \sin \textit{equatorial horizontal parallax} \times \sin (55^\circ\ 46'\ 43'' - \textit{apparent Declination of limb}),$$

r denoting the Earth's radius.

The Moon's equatorial parallax has been corrected, during the first six months of the year, by the small quantity given by Mr AIRY in the Cambridge Observations for 1833, p. xxiv.

For the Sun and Planets, the small arcs were taken in place of their sines.

The parallax and semidiameter in declination being applied according to their signs, (the sign of the semidiameter being + for an observation of the south limb, and — for an observation of the north), to the apparent Declination of the Sun, or Planet, and also of the Moon, during the first six months of the year, given in the last column of the Observations, the result is the geocentric Declination of the centre deduced from the observation. During the latter six months, the difference between the apparent Declination of the Moon's limb and the geocentric Declination of the centre has been found from the formula,

$$\sin \textit{difference} = \sin \textit{parallax in declination} \pm \sin \textit{horizontal semidiameter},$$

(+ for observations of the south limb; — for observations of the north).

The observations of Venus on May 26, 28, July 4, 8, August 1, 4, 9, 10, 11, and October 5, were made upon the limbs that were not fully enlightened, and the defect of illumination has been allowed for in these cases, by diminishing the tabular semidiameter by the proper quantities found by trigonometrical calculation.

The Declinations of the centres of the Sun and Planets have been computed from the Nautical Almanac and Meridian Ephemeris, for the transits over the meridian of Edinburgh.

The Declinations of the Moon's centre have been calculated from the hourly Ephemeris of the Nautical Almanac for the computed Greenwich mean times of the Moon's centre passing the meridian of Edinburgh. The corresponding Greenwich sidereal times are equal to the Right Ascensions of the limb when passing the meridian of Edinburgh, computed from the list of Moon-culminating Stars, *plus* or *minus* the duration of transit of the semidiameter taken from the same list, according as the first or second limb was observed, *plus* $12^{h}\ 43^{s}\!\cdot\!6$ for the difference of Longitude.

The Right Ascensions and Declinations computed from the Ephemerides are not given, but the differences of the observed and computed places are stated, with the signs indicating how they are to be applied to the computed or tabular places to obtain those observed.

The Right Ascensions and Declinations of the Moon ought, in strictness, to be calculated for the times of the limbs and centre passing the meridian, as deduced from the observations; and therefore, the differences from the Ephemerides ought to be corrected by the motions in Right Ascension and Declination in the times denoted by the same differences in Right Ascension, if so great a degree of nicety shall be deemed requisite.

V. *Observations of the Annular Eclipse of the Sun on May 15, 1836, of Occultations of Stars by the Moon, and of Eclipses of Jupiter's Satellites.*

These miscellaneous Observations were made by myself.

In calculating the observations of the Solar Eclipse, and in comparing the observed times of the Eclipses of Jupiter's Satellites, with those computed in the Nautical Almanac, the Longitude of Edinburgh has been assumed $12^{m}\ 43^{s}\cdot6$.

I shall now give some results, which have been deduced from the Observations.

VI. *Position of the Ecliptic.*

The Right Ascension A, and Declination D, of the Sun, given in the Nautical Almanac, are connected by the formula,

$$\tan D = \sin A \tan \omega,$$

ω denoting the obliquity of the Ecliptic employed in the Almanac. Differentiating this expression, and putting

$$\frac{\sin 2D}{2 \tan A} = F \qquad \text{and} \qquad \frac{\sin 2D}{\sin 2\omega} = G,$$

we obtain

$$\mathrm{d}D = F\mathrm{d}A + G\mathrm{d}\omega.$$

The observed Right Ascension of the Sun is $= A + a$; a being the "difference from Nautical Almanac" in Right Ascension given in the Table of the observed Right Ascensions and Declinations of the Sun, pp. 125–128: and $D + Fa$ is the Sun's Declination, computed from the observed Right Ascension and the obliquity given in the Almanac. $D + d$ is the Sun's Declination, deduced from the observation with the Circle; d denoting the "difference from Nautical Almanac" in Declination in the same Table. Supposing that the Right Ascensions of all celestial objects should be increased by x'', for the correction of the assumed position of the Equinoctial points; that the obliquity employed in the Almanac should be increased by y''; that the observed Declinations of the Sun, and other objects within the tropics, as determined by the Circle, should be increased by z''; and that the semi-diameter of the Sun in the Almanac, used in the computation of the Declination, deduced from observation, should be increased by u''; then the true observed Declination of the Sun's centre,

$$D+d+z\mp u=D+Fa+Fx+Gy\,;$$

and therefore

$$(Fa-d)+Fx+Gy-z\pm u=0\,;$$

which is the form of the equations from which the unknown quantities x, y, z, and u are to be determined. The upper sign of u is for observations of the north limb, the lower for observations of the south.

The equations for all the days on which the Sun was observed, both in Right Ascension and in Declination, are here given.

Date.	0 =	Probable Error.
1836,	″	″
Jan. 9	$-2{\cdot}7+0{\cdot}13\,x-0{\cdot}96\,y-z-u$	1·69
16	$-2{\cdot}0+0{\cdot}17\,x-0{\cdot}92\,y-z+u$	1·63
30	$+0{\cdot}6+0{\cdot}26\,x-0{\cdot}80\,y-z-u$	1·49
Feb. 6	$+0{\cdot}1+0{\cdot}30\,x-0{\cdot}72\,y-z-u$	1·41
20	$-2{\cdot}2+0{\cdot}37\,x-0{\cdot}52\,y-z-u$	1·25
Mar. 5	$+1{\cdot}2+0{\cdot}42\,x-0{\cdot}29\,y-z+u$	1·10
19	$+2{\cdot}0+0{\cdot}43\,x-0{\cdot}02\,y-z-u$	0·99
26	$+3{\cdot}4+0{\cdot}43\,x+0{\cdot}11\,y-z-u$	0·97
April 1	$+3{\cdot}4+0{\cdot}42\,x+0{\cdot}23\,y-z+u$	0·97
27	$-2{\cdot}0+0{\cdot}33\,x+0{\cdot}64\,y-z+u$	0·94
May 2	$-0{\cdot}7+0{\cdot}31\,x+0{\cdot}70\,y-z-u$	0·94
3	$-2{\cdot}2+0{\cdot}30\,x+0{\cdot}72\,y-x+u$	0·94
6	$+0{\cdot}2+0{\cdot}29\,x+0{\cdot}75\,y-z-u$	0·94
9	$+0{\cdot}4+0{\cdot}27\,x+0{\cdot}78\,y-z+u$	0·94
10	$-1{\cdot}2+0{\cdot}27\,x+0{\cdot}79\,y-z-u$	0·93
11	$0{\cdot}0+0{\cdot}26\,x+0{\cdot}80\,y-z+u$	0·93
12	$+1{\cdot}4+0{\cdot}26\,x+0{\cdot}81\,y-z-u$	0·93
15	$-0{\cdot}2+0{\cdot}24\,x+0{\cdot}84\,y-z+u$	0·93
18	$0{\cdot}0+0{\cdot}22\,x+0{\cdot}86\,y-z-u$	0·93
19	$+0{\cdot}4+0{\cdot}21\,x+0{\cdot}87\,y-z+u$	0·93
21	$+0{\cdot}4+0{\cdot}20\,x+0{\cdot}89\,y-z-u$	0·93
23	$+0{\cdot}5+0{\cdot}19\,x+0{\cdot}90\,y-z+u$	0·93
24	$+1{\cdot}6+0{\cdot}18\,x+0{\cdot}91\,y-z-u$	0·93
25	$+0{\cdot}2+0{\cdot}18\,x+0{\cdot}91\,y-z+u$	0·93
26	$+1{\cdot}6+0{\cdot}17\,x+0{\cdot}92\,y-z-u$	0·93
1836,	″	″
May 27	$+0{\cdot}3+0{\cdot}16\,x+0{\cdot}93\,y-z+u$	0·93
28	$+2{\cdot}5+0{\cdot}16\,x+0{\cdot}93\,y-z-u$	0·93
30	$+0{\cdot}6+0{\cdot}15\,x+0{\cdot}94\,y-z+u$	0·93
31	$+1{\cdot}4+0{\cdot}14\,x+0{\cdot}95\,y-z-u$	0·93
July 2	$+0{\cdot}8-0{\cdot}07\,x+0{\cdot}99\,y-z-u$	0·93
4	$-1{\cdot}0-0{\cdot}09\,x+0{\cdot}98\,y-z+u$	0·93
6	$+1{\cdot}0-0{\cdot}10\,x+0{\cdot}97\,y-z+u$	0·93
7	$+0{\cdot}5-0{\cdot}11\,x+0{\cdot}97\,y-z-u$	0·93
8	$+1{\cdot}0-0{\cdot}11\,x+0{\cdot}96\,y-z+u$	0·93
18	$+1{\cdot}3-0{\cdot}18\,x+0{\cdot}91\,y-z-u$	0·93
19	$+0{\cdot}6-0{\cdot}18\,x+0{\cdot}91\,y-z+u$	0·93
20	$-0{\cdot}8-0{\cdot}19\,x+0{\cdot}90\,y-z-u$	0·93
27	$+0{\cdot}2-0{\cdot}23\,x+0{\cdot}85\,y-z+u$	0·93
Aug. 2	$-0{\cdot}1-0{\cdot}27\,x+0{\cdot}79\,y-z-u$	0·93
9	$-0{\cdot}5-0{\cdot}30\,x+0{\cdot}72\,y-z+u$	0·94
10	$+0{\cdot}1-0{\cdot}31\,x+0{\cdot}70\,y-z-u$	0·94
11	$+2{\cdot}0-0{\cdot}31\,x+0{\cdot}69\,y-z+u$	0·94
12	$-0{\cdot}2-0{\cdot}32\,x+0{\cdot}68\,y-z-u$	0·94
13	$-0{\cdot}8-0{\cdot}32\,x+0{\cdot}67\,y-z+u$	0·94
15	$+2{\cdot}1-0{\cdot}33\,x+0{\cdot}64\,y-z-u$	0·94
16	$+0{\cdot}7-0{\cdot}34\,x+0{\cdot}63\,y-z+u$	0·94
23	$-0{\cdot}4-0{\cdot}37\,x+0{\cdot}53\,y-z-u$	0·95
24	$0{\cdot}0-0{\cdot}37\,x+0{\cdot}51\,y-z+u$	0·95
26	$-0{\cdot}7-0{\cdot}38\,x+0{\cdot}49\,y-z-u$	0·95
27	$-1{\cdot}9-0{\cdot}38\,x+0{\cdot}47\,y-z+u$	0·95
29	$+0{\cdot}9-0{\cdot}39\,x+0{\cdot}43\,y-z-u$	0·96

Date.	0 =	Probable Error.	Date.	0 =	Probable Error.
1836,	″	″	1836,	″	″
Sept. 1	$-1\cdot3-0\cdot40\,x+0\cdot39\,y-z+u$	0·96.	Nov. 4	$-0\cdot4-0\cdot31\,x-0\cdot70\,y-z-u$	1·40
2	$-0\cdot8-0\cdot41\,x+0\cdot37\,y-z-u$	0·96	5	$+2\cdot6-0\cdot30\,x-0\cdot72\,y-z+u$	1·41
5	$+2\cdot0-0\cdot41\,x+0\cdot31\,y-z+u$	0·96	7	$+0\cdot5-0\cdot29\,x-0\cdot74\,y-z-u$	1·44
12	$+1\cdot1-0\cdot43\,x+0\cdot20\,y-z+u$	0·97	10	$+0\cdot1-0\cdot27\,x-0\cdot78\,y-z+u$	1·47
17	$+3\cdot0-0\cdot43\,x+0\cdot10\,y-z-u$	0·97	14	$+0\cdot3-0\cdot25\,x-0\cdot82\,y-z-u$	1·51
28	$+0\cdot9-0\cdot43\,x-0\cdot10\,y-z+u$	1·02	30	$+2\cdot4-0\cdot15\,x-0\cdot94\,y-z+u$	1·67
30	$-1\cdot9-0\cdot43\,x-0\cdot13\,y-z-u$	1·04			
			Dec. 1	$-0\cdot6-0\cdot14\,x-0\cdot95\,y-z-u$	1·67
Oct. 4	$-0\cdot6-0\cdot42\,x-0\cdot22\,y-z+u$	1·07	3	$+2\cdot1-0\cdot13\,x-0\cdot96\,y-z+u$	1·69
6	$+0\cdot7-0\cdot42\,x-0\cdot25\,y-z-u$	1·08	7	$+2\cdot0-0\cdot10\,x-0\cdot97\,y-z-u$	1·71
7	$+1\cdot2-0\cdot42\,x-0\cdot27\,y-z+u$	1·09	9	$+3\cdot5-0\cdot09\,x-0\cdot98\,y-z+u$	1·72
8	$+1\cdot3-0\cdot42\,x-0\cdot29\,y-z-u$	1·10	10	$+0\cdot5-0\cdot08\,x-0\cdot98\,y-z-u$	1·73
15	$+2\cdot1-0\cdot40\,x-0\cdot41\,y-z+u$	1·17	13	$-0\cdot2-0\cdot06\,x-0\cdot99\,y-z+u$	1·74
19	$0\cdot0-0\cdot38\,x-0\cdot47\,y-z+u$	1·21	16	$-1\cdot3-0\cdot04\,x-1\cdot00\,y-z-u$	1·75
20	$+3\cdot6-0\cdot38\,x-0\cdot49\,y-z+u$	1·22	17	$+3\cdot5-0\cdot03\,x-1\cdot00\,y-z+u$	1·75
25	$+0\cdot6-0\cdot36\,x-0\cdot57\,y-z+u$	1·29	21	$+2\cdot6\quad 0\cdot00\quad -1\cdot00\,y-z-u$	1·75
27	$+0\cdot5-0\cdot35\,x-0\cdot60\,y-z-u$	1·31			
28	$+1\cdot5-0\cdot34\,x-0\cdot61\,y-z+u$	1·32			

The probable errors are those which affect the numbers constituting the first terms of the right-hand members of the equations, being the differences between the Sun's Declinations deduced from the observations with the Transit-Instrument and Circle respectively. They are given that each equation may have its proper weight in the calculation of the equations of *minimum* squares. They are the same as those which were assumed in the similar calculations contained in Vol. I, and were found by supposing that the differences between the Declinations deduced from the two instruments ought to be constant for periods of a month, and by considering the discordances of the several values contained within the different periods; whence the probable errors were obtained for various degrees of zenith distance.

Multiplying each equation by the reciprocal of its probable error, and solving the equations thus formed by the method of *minimum* squares, final equations are obtained:

$$\begin{aligned}
0 &= -\ \overset{\prime\prime}{2\cdot22}+6\cdot661\,x+\ 0\cdot892\,y+\ 5\cdot777\,z-\ 1\cdot688\,u,\\
0 &= +\ 5\cdot98+0\cdot892\,x+39\cdot185\,y-29\cdot855\,z+\ 0\cdot683\,u,\\
0 &= -36\cdot24+5\cdot777\,x-29\cdot855\,y+74\cdot618\,z-\ 1\cdot682\,u,\\
0 &= -\ 3\cdot14-1\cdot688\,x+\ 0\cdot683\,y-\ 1\cdot682\,z+74\cdot618\,u.
\end{aligned}$$

Whence, by elimination,

$$\left.\begin{array}{ll}
x= & \overset{\prime\prime}{-0\cdot26}:\ \cdots\cdots\cdots\text{Weight }5\cdot81\\
y= & +0\cdot34:\ \cdots\cdots\cdots\ \text{——}\ 25\cdot58\\
z= & +0\cdot64:\ \cdots\cdots\cdots\ \text{——}\ 45\cdot66\\
u= & +0\cdot05:\ \cdots\cdots\cdots\ \text{——}\ 74\cdot07
\end{array}\right\}\ \text{observations, each having a probable error of }1''.$$

It thus appears, that the Right Ascensions of the Sun, Stars, and all objects, should be diminished by $0''\cdot26$ of space, or $0^{s}\cdot02$ of time, for the correction of the assumed position of the Equinoctial points; that the obliquity of the Ecliptic employed in the Nautical Almanac should be increased by 0″·34; whence the obliquity for the beginning of 1836, deduced from the observations, is 23° 27′ 38″·7; that the northern Declinations of the Sun, and bodies within the tropics, given by the Circle and the assumed elements of reduction, should be increased by 0″·64, and the southern Declinations diminished by the same quantity; and that the Sun's semi-diameter in the Nautical Almanac, taken from the *Tabulæ Regiomontanæ*, should be increased by 0″·05, to give the Sun's vertical diameter measured with the Circle.

From the Table pp. 124–125, it appears, that, by a mean of 153 observations, the time of the Sun's horizontal diameter passing the meridian, observed with the Transit-Instrument, agrees precisely with the quantity given in the Nautical Almanac, also taken from the *Tabulæ Regiomontanæ*.

The small weight attached to the present determination of the position of the Equinoctial points, shews that not much reliance is to be placed upon it. It may be used, however, in combination with the determinations of other years, for establishing with greater precision the situation of these points.

VII. *The Polar and Equatorial points of the Circle.*

By the Circle-observations (Catalogue, pp. 118–121), the Declination of
α Ursæ Minoris above the Pole, is . . . . 88° 26′ 4″·6
below the Pole, ... 5″·0
and the Declination of *δ Ursæ Minoris* above the Pole, is . . . 86° 35′ 20″·8
below the Pole, . . 20″·3
Therefore the Polar point, assumed in the reductions, appears to coincide with the true Pole.

It has been found from the observations of the Sun, that the Circle-observations give the Declinations between the tropics 0″·64 too southerly. It may therefore be inferred from this year's observations, that the arc between the Pole and the Equator, obtained from the Circle-observations and the assumed elements of reduction, is greater than 90° by 0″·64; but, as the observations of 1834–5 make the same arc less than 90° by 0″·35, the position of the Equatorial point is for the present allowed to remain without correction.

VIII. *Observations of the Sun.*

The mean difference of the Sun's observed and tabular Right Ascensions is,

	s.	
From winter Solstice 1835 to spring Equinox 1836,	+0·02	38 observations.
From spring Equinox to summer Solstice 1836,	−0·02	52 ——
From summer Solstice to autumnal Equinox 1836,	0·00	42 ——
From autumnal Equinox to winter Solstice 1836,	−0·10	35 ——
and		
From winter Solstice 1835 to winter Solstice 1836,	−0·02	167 ——

IX. *Observations of the Moon.*

The mean difference of the observed and tabular Right Ascensions of the Moon, (excluding the observation of the dark limb on December 31,) is as follows:

		s.
First limb,	62 observations	−0·54
Second limb,	27 ——	−0·22
	Mean,	−0·38.

The mean difference of the observed and tabular Declinations of the Moon is,

		″		° ′
North limb	28 observations	−2·6.	Mean Declination	+13 13
South limb	34 ——	−6·1.	——	− 4 30.

In like manner, from the observations of 1834–5 we have the mean difference of the observed and tabular Declinations of the Moon,

		″		° ′
North limb,	25 observations	−2·2.	Mean Declination	+6 41
South limb,	38 ——	−4·0.	——	−0 18.

The tabular Right Ascensions and Declinations are those given in the Nautical Almanac, and computed from BURCKHARDT's Tables.

X. *Oppositions and Inferior Conjunctions of the Planets.*

The corrections of the Heliocentric Longitude and Latitude of the Planets at their Oppositions and Inferior Conjunctions have been determined in the manner explained in the Introduction to Vol. I.

dA = correction of Planet's Right Ascension in time.
dD = —— Declination
dl = —— Geocentric Longitude
db = —— —— Latitude } in space.
$d\lambda$ = —— Heliocentric Longitude
$d\beta$ = —— —— Latitude
dA' = correction of Sun's Right Ascension in time.
dL = —— Longitude in space.

Inferior Conjunction of Venus, July 25, 1836.

$\mathrm{d}A' = +0^{\mathrm{s}}{\cdot}10$, mean of 4 observations, July 18—23.
$\mathrm{d}A' = -0^{\mathrm{s}}{\cdot}08$, mean of 3 observations, July 27—August 5.

Whence $\mathrm{d}L = +1''{\cdot}4$ before conjunction, and $= -1''{\cdot}2$ after conjunction.

	dl	db	dλ	dβ
	″	″	″	″
July 18	−13·2	− 9·0	+7·6	−3·7
19	−10·6	......	+6·4	......
20	−13·3	− 9·1	+7·5	−3·7
22	−11·0	− 4·3	+6·4	−1·7
31	......	−11·2	......	−4·6
Aug. 1	− 7·1	......	+1·3	......
4	− 5·1	− 9·2	+0·6	−3·9
5	− 6·3	− 8·5	+1·2	−3·6

The observation of the Declination of Venus on August 1 is rejected, as it is evidently erroneous.

dλ appears to have different values before and after the conjunction. The mean value before conjunction is $+7''{\cdot}0$, and after, $+1''{\cdot}0$; whence for the conjunction $\mathrm{d}\lambda = +4''{\cdot}0$, and d$\beta$ (mean of all the determinations) $= -3''{\cdot}5$.

Opposition of Vesta, March 16, 1836.

$\mathrm{d}A = -2^{\mathrm{s}}{\cdot}64$, mean of 6 observations, March 9—25.
$\mathrm{d}D = +12''{\cdot}7$, mean of 5 observations, March 14—24.
$\mathrm{d}A' = +0^{\mathrm{s}}{\cdot}06$, mean of 9 observations, March 9—25.

Whence,

$\mathrm{d}L = +1''{\cdot}0 \qquad \mathrm{d}\lambda = -22''{\cdot}8$
$\mathrm{d}l = -41{\cdot}4 \qquad \mathrm{d}\beta = -2{\cdot}4$
$\mathrm{d}b = -4{\cdot}1.$

Opposition of Juno, January 1, 1836.

$\mathrm{d}A = +3^{\mathrm{s}}{\cdot}04$, mean of 6 observations, Dec. 18—Jan. 12.
$\mathrm{d}D = +19''{\cdot}8$, mean of 5 observations, Dec. 18—Jan. 12.
$\mathrm{d}A' = -0^{\mathrm{s}}{\cdot}03$, mean of 3 observations, Dec. 22—Jan. 9.

Whence,

$\mathrm{d}L = -0''{\cdot}4 \qquad \mathrm{d}\lambda = +25''{\cdot}2$
$\mathrm{d}l = +47{\cdot}8 \qquad \mathrm{d}\beta = +13{\cdot}5$
$\mathrm{d}b = +23{\cdot}0.$

Opposition of Pallas, August 13, 1836.

$\mathrm{d}A = -1^{\mathrm{s}}{\cdot}81$, mean of 8 observations, Aug. 8—27.
$\mathrm{d}D = -25''{\cdot}8$, mean of 6 observations, Aug. 8—28.
$\mathrm{d}A' = -0^{\mathrm{s}}{\cdot}03$, mean of 14 observations, Aug. 8—27.

Whence, $dL = -\overset{''}{0}{\cdot}5$ $d\lambda = -\overset{''}{26}{\cdot}0$
$dl = -37{\cdot}7$ $d\beta = -12{\cdot}3$
$db = -16{\cdot}0$.

Opposition of Ceres, September 7, 1836.

$dA = -0^{s}{\cdot}53$, mean of 6 observations, Aug. 27—Sept. 17.
$dD = -5''{\cdot}3$, mean of 6 observations, Aug. 27—Sept. 17.
$dA' = -0^{s}{\cdot}01$, mean of 9 observations, Aug. 27—Sept. 17.

Whence, $dL = -\overset{''}{0}{\cdot}1$ $d\lambda = -\overset{''}{6}{\cdot}1$
$dl = -9{\cdot}3$ $d\beta = -1{\cdot}2$
$db = -1{\cdot}8$.

Opposition of Jupiter, January 1, 1836.

$dA = -0^{s}{\cdot}45$, mean of 8 observations, Dec. 21—Jan. 13.
$dD = -0''{\cdot}6$, mean of 6 observations, Dec. 21—Jan. 12.
$dA' = -0^{s}{\cdot}05$, mean of 4 observations, Dec. 22—Jan. 13.

Whence, $dL = -\overset{''}{0}{\cdot}7$ $d\lambda = -\overset{''}{5}{\cdot}1$
$dl = -6{\cdot}1$ $d\beta = -0{\cdot}9$
$db = -1{\cdot}1$.

Opposition of Saturn, April 21, 1836.

$dA = -0^{s}{\cdot}10$, mean of 6 observations, April 18—26.
$dD = +19''{\cdot}1$, mean of 6 observations, April 18—26.
$dA' = -0^{s}{\cdot}01$, mean of 3 observations, April 18—27.

Whence, $dL = -\overset{''}{0}{\cdot}1$ $d\lambda = -\overset{''}{7}{\cdot}2$
$dl = -8{\cdot}0$ $d\beta = +15{\cdot}6$
$db = +17{\cdot}4$.

Opposition of Uranus, August 25, 1836.

$dA = -4^{s}{\cdot}07$, mean of 9 observations, Aug. 12—Sept. 13.
$dD = -8''{\cdot}8$, mean of 8 observations, Aug. 12—Sept. 13.
$dA' = -0^{s}{\cdot}02$, mean of 17 observations, Aug. 12—Sept. 12.

Whence, $dL = -\overset{''}{0}{\cdot}3$ $d\lambda = -\overset{''}{56}{\cdot}0$
$dl = -59{\cdot}0$ $d\beta = +12{\cdot}7$
$db = +13{\cdot}4$.

XI. *Longitude of Edinburgh, from Observations of Moon-culminating Stars.*

From the corresponding observations of Moon-culminating Stars, made at Greenwich, Cambridge, and Edinburgh, in the year 1836, the Longitude of Edinburgh has been determined as under:

Let a = observed increase of R. A. of Moon's limb in the interval between the transits over the meridians of Greenwich or Cambridge and Edinburgh.

v = variation of Moon's R. A. in 1 hour of Longitude, interpolated from the Nautical Almanac for the middle of the interval.

l = difference of Longitude of the two Meridians, expressed in decimal parts of an hour.

Then, $vl = a$.

A number of observations made on different days may be combined together to give one result, by assigning to them their proper weights, depending on the number of Moon-culminating Stars observed on the respective days. Let n denote the number of Stars observed, and w, the weight of the observation. Then, when one limb of the Moon has been observed,

$$w = \frac{n}{n+1};$$

And, when both limbs have been observed,

$$w = \frac{2n}{n+2}.$$

Multiplying each equation by its weight, we obtain

$$vwl = aw.$$

And, adding the equations together,

$$l\Sigma vw = \Sigma aw;$$

$$\text{and} \quad l = \frac{\Sigma aw}{\Sigma vw}.$$

Difference of Longitude of Greenwich and Edinburgh.

Date.	Limb observed.	Number of Stars.	a.	aw.	vw.
1836,			s.	s.	s.
Jan. 11	II.	2	27·60	18·40	87·77
28	I.	2	27·27	18·18	87·05
30	I.	3	29·78	22·34	104·66
Feb. 23	I.	1	26·06	13·03	61·80
Mar. 26	I.	4	29·60	23·68	110·66
29	I.	1	27·76	13·88	64·86
Apr. 29	I.	2	28·19	18·79	88·95
May 25	I.	4	26·19	20·95	98·71
26	I.	4	27·12	21·70	102·11
27	I.	4	28·78	23·02	108·32
Aug. 24	I.	3	34·13	25·60	120·12
Sept. 24	I.	2	27·03	18·02	83·71
Oct. 19	I.	4	29·64	23·71	111·21
23	I.	1	25·85	12·92	60·86
Nov. 14	I.	2	32·71	21·81	102·95
18	I.	3	25·58	19·18	90·08
20	I.	3	25·94	19·46	90·79
Dec. 15	I.	1	25·31	12·66	60·82
16	I.	3	25·07	18·80	89·15
			Sum,……	366·13	1724·58

$$\text{Hence,} \quad l = \frac{\overset{s.}{3600} \times 366{\cdot}13}{1724{\cdot}58} = \overset{m.}{12}\ \overset{s.}{44{\cdot}3}$$

Difference of Longitude of Cambridge and Edinburgh.

Date.	Limb observed.	Number of Stars.	a.	aw.	vw.
1836,			s.	s.	s.
Mar. 29	I.	3	28·73	21·55	97·28
30	I.	2	28·26	18·84	85·13
April 2	II.	2	29·78	19·85	90·53
29	I.	2	29·03	19·35	88·95
May 19	I.	1	29·84	14·92	68·66
26	I.	3	28·06	21·04	95·73
27	I.	2	29·78	19·85	90·27
June 25	I.	4	32·87	26·30	119·73
28	I. & II.	3	39·00	46·80	215·47
Aug. 24	I.	3	35·39	26·54	120·13
27	II.	2	28·50	19·00	86·20
Oct. 4	II.	1	28·17	14·08	65·06
21	I.	1	27·33	13·66	62·29
23	I.	1	26·81	13·40	60·86
Nov. 14	I.	2	32·99	21·99	102·93
20	I.	3	26·56	19·92	90·79
Dec. 13	I.	1	30·40	15·20	69·06
16	I.	3	26·01	19·51	89·15
23	II.	2	30·18	20·12	91·87
			Sum,......	391·92	1790·09

Hence, $$l = \frac{3600^{s.} \times 391{\cdot}92}{1790{\cdot}09} = 13^{m.}\ 8{\cdot}2^{s.}$$

General Result.

	m.	s.
Difference of Longitude of Cambridge and Edinburgh, ...	13	8·2
———————— Greenwich and Cambridge, ...		23·5
Longitude of Edinburgh from Cambridge observations, ...	12	44·7
———————— Greenwich ————————	12	44·3
Mean—Longitude of Edinburgh from observations of 1836, ...	12	44·5
———————— 1834–5, (Vol. I. p. liv,) . .	12	43·2
Mean—Longitude from observations of 1834–6, ...	12	43·8

OBSERVATIONS

MADE WITH

THE TRANSIT INSTRUMENT

In the Year 1836.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Jan. 3	Moon 1 Limb	27·8	42·8	57·8	13·4	28·5	54 58·06	+ 0·30	....	– 50·05	6 54 8·31
	(*a*) Moon 2 Limb	45·6	0·8	16·0	31·2	46·4	57 16·00	+ 0·30	....	– 50·05	6 56 26·25
Jan. 4	Moon 2 Limb	34·2	49·0	4·0	19·1	34·1	53 4·08	+ 0·31	....	– 52·05	7 52 12·34
Jan. 6	α Ursæ Minoris	......	46·5	56·5	......	......	1 56·15	– 10·21	....	– 55·36	1 0 50·58
	Microm.	......	52·5	......	0·0	......					
	β Tauri	21·3	36·4	51·5	6·6	21·8	16 51·52	+ 0·27	– 55·62	– 55·68	5 15 56·11
	α Orionis	46·6	0·0	13·5	27·0	40·5	47 13·52	+ 0·39	– 55·78	– 55·72	5 46 18·19
Jan. 7	α Andromedæ	20·8	35·8	50·8	6·0	21·2	0 50·92	+ 0·27	– 57·15	– 57·19	23 59 54·00
	γ Pegasi	16·2	29·8	43·7	57·4	11·1	5 43·64	+ 0·36	57·25	– 57·19	0 4 46·81
	α Ursæ Minoris	42·0	48·5	59·5	......	16·5	1 58·40	– 10·21	....	– 57·27	1 0 50·92
	Microm.	......	54·0	......	......	......					
	α Arietis	24·5	38·8	53·1	7·5	21·8	58 53·14	+ 0·31	57·49	– 57·34	1 57 56·11
	β Tauri	23·2	38·3	53·3	8·4	23·5	16 53·34	+ 0·27	57·44	– 57·61	5 15 56·00
	α Orionis	48·7	2·0	15·3	28·8	42·2	47 15·40	+ 0·39	57·66	– 57·65	5 46 18·14
	Juno	39·2	52·6	6·0	19·5	32·7	33 6·00	+ 0·42	....	– 57·71	6 32 8·71
	Jupiter 1 Limb	21·7	......	50·4	......	19·2	44 50·43	+ 0·31	....	– 57·73	6 43 53·01
	Jupiter 2 Limb	......	39·4	......	8·3	......	44 53·85	+ 0·31	....	– 57·73	6 43 56·43
	⁎ D + 16° 59′	52·2	5·8	19·8	33·5	47·7	15 19·80	+ 0·34	....	– 57·77	7 14 22·37
	⁎ D + 17° 9′	21·1	35·0	49·0	2·8	16·8	17 48·94	+ 0·34	....	– 57·78	7 16 51·50
	δ Ursæ Minoris	31·5	13·0	56·5	40·0	24·0	25 56·87	– 4·43	....	– 58·67	18 24 53·77
	Microm.	......	5·0	......	48·5	......					
Jan. 8	δ Ursæ Minor. S. P.	22·5	4·5	49·0	31·5	14·5	25 48·35	+ 5·29	....	– 59·63	6 24 54·01
	Microm.	......	56·5	......	39·5	......					
	δ Ursæ Minoris	33·0	15·5	58·5	42·0	26·0	25 58·87	– 4·43	....	– 60·59	18 24 53·85
	Microm.	......	7·0	......	50·5	......					
	α Lyræ	47·4	4·4	21·3	38·4	55·5	32 21·36	+ 0·20	– 60·62	– 60·60	....
	Microm.	......	12·8	......	29·7	......					
Jan. 9	Sun 1 Limb	50·5	4·8	19·1	33·3	47·7	19 19·08	+ 0·55	....	– 60·67	19 18 18·96
	(*b*) Sun 2 Limb	11·8	25·8	40·5	54·7	9·0	21 40·36	+ 0·55		– 60·67	19 20 40·24
	α Aquilæ	14·2	27·6	41·0	54·5	7·9	42 41·04	+ 0·39	+ 3·35	+ 3·30	19 42 44·73
	α Cygni	7·4	26·0	44·9	3·4	22·3	35 44·77	+ 0·14	3·19	+ 3·23	20 35 48·14
	Microm.	......	35·4	......	54·0	......					
	(*c*) Venus 1 Limb	38·5	52·3	6·4	20·5	34·5	59 6·44	+ 0·53		+ 13·13	20 59 20·10
	α Andromedæ	10·4	25·5	40·6	55·8	10·8	59 40·62	+ 0·27	+ 13·13	+ 13·13	23 59 54·02
	γ Pegasi	5·8	19·5	33·2	46·9	0·7	4 33·22	+ 0·36	13·14	+ 13·13	0 4 46·71
	α Ursæ Minoris	28·5	36·0	44·5	51·5	0·0	0 44·26	– 10·21	....	+ 13·13	1 0 47·18
	Microm.	......	42·0	......	48·0	......					
	α Arietis	13·6	27·8	42·4	56·8	11·3	57 42·38	+ 0·31	13·24	+ 13·13	1 57 55·82
	ξ^1 Arietis	21·5	35·0	48·4	1·8	15·1	15 48·36	+ 0·38	....	+ 13·13	2 16 1·87
	α Ceti	2·7	16·0	29·2	42·5	55·8	53 29·24	+ 0·41	12·95	+ 13·13	2 53 42·78
	α Aurigæ	44·2	3·2	22·3	41·3	0·4	4 22·29	+ 0·13	13·18	+ 13·13	5 4 35·55
	Microm.	......	12·8	......	31·8	......					
	α Leporis	49·2	3·2	17·0	31·1	44·8	25 17·06	+ 0·52	....	+ 13·12	5 25 30·70
	⁎ D + 24° 46′	59·6	14·2	18·8	33·3	48·0	48 18·78	+ 0·30	....	+ 13·12	5 48 32·20
	δ Ursæ Minor. S. P.	......	......	34·0	17·5	59·5	24 33·98	+ 5·29	....	+ 13·12	6 24 52·39
	Microm.	......	42·0	......	27·0	......					
Jan. 10	α Cygni	57·6	16·3	34·8	53·5	12·1	35 34·86	+ 0·14	+ 13·10	+ 13·10	....
	Microm.	......	25·5	......	44·2	......					
Jan. 11	α Andromedæ	10·7	25·7	40·8	55·8	11·0	59 40·80	+ 0·27	+ 12·92	+ 12·80	23 59 53·87
	γ Pegasi	6·0	19·8	33·4	47·1	0·9	4 33·44	+ 0·36	12·90	+ 12·80	0 4 46·60

(*a*) Both limbs fully enlightened.

(*b*) After the observation of the Sun, the clock was put back one minute, when it lost 4 seconds.

(*c*) Clock stopped, and pendulum lengthened.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.		Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.		
		I.	II.	III.	IV.	V.				observed.	interpolated.			
		s.	s.	s.	s.	s.	m.	s.	s.	s.	s.	h.	m.	s.
Jan. 11	α Ursæ Minoris	28·5	36·5	46·5	52·5	5·0	0	45·47	− 10·21	……….	+ 12·79	1	0	48·05
	Microm.	……	41·5	……	48·5	……								
	β Tauri	13·4	28·5	43·4	58·4	13·5	15	43·44	+ 0·27	+ 12·47	+ 12·74	5	15	56·45
	α Orionis	38·2	51·6	4·8	18·4	31·8	46	4·96	+ 0·39	12·80	+ 12·73	5	46	18·08
	δ Ursæ Minor. S.P.	7·5	51·0	34·0	……	59·0	24	34·27	+ 5·29	……….	+ 12·72	6	24	52·28
	Microm.	……	43·5	……	26·5	……								
	Juno	14·8	28·4	42·0	55·8	9·3	28	42·06	+ 0·42	……….	+ 12·72	6	28	55·20
	Jupiter 1 Limb	……	8·6	……	37·8	……	41	23·20	+ 0·31	……….	+ 12·71	6	41	36·22
	Jupiter 2 Limb	57·8	……	26·8	……	55·7	41	26·77	+ 0·31	……….	+ 12·71	6	41	39·79
	α Virginis	52·9	6·4	19·7	33·3	46·8	16	19·82	+ 0·48	12·65	+ 12·57	13	16	32·87
	74 Virginis	46 2	59·3	12·8	26·2	39·5	23	12·80	+ 0·46	……….	+ 12·57	13	23	25·83
	82 Virginis	19·8	33·3	46·8	0·3	13·9	32	46·82	+ 0·47	……….	+ 12·56	13	32	59·85
	Moon 2 Limb	40·4	54·0	7·8	21·7	35·5	51	7·88	+ 0·50	……….	+ 12·56	13	51	20·94
Jan. 12	α Andromedæ	11·0	26·0	41·2	56·2	11·3	59	41·14	+ 0·47	+ 12·37	+ 12·34	23	59	53·95
	α Ursæ Minoris	31·5	40·5	47·5	56·5	6·0	0	47·90	− 17·61	……….	+ 12·32	1	0	42·61
	Microm.	……	43·0	……	51·0	……								
	α Arietis	14·4	28·9	43·3	57·7	12·1	57	43·28	+ 0·53	12·09	+ 12·30	1	57	56·11
	β Orionis	0·0	13·4	26·8	40·2	53·8	6	26·84	+ 0·81	12·31	+ 12·25	5	6	39·90
	β Tauri	13·2	28·0	43·2	58·5	13·8	15	43·34	+ 0·47	12·37	+ 12·25	5	15	56·06
	δ Ursæ Minor. S.P.	9·0	49·0	33·5	……	58·5	24	33·52	+ 9·12	……….	+ 12·25	6	24	54·89
	Microm.	……	42·0	……	25·0	……								
	Juno	30·0	43·8	57·3	10·6	23·8	27	57·10	+ 0·73	……….	+ 12·24	6	28	10·07
	α Canis Majoris	15·0	29·1	42·8	56·6	10·7	37	42·84	+ 0·89	12·14	+ 12·24	6	37	55·97
	Jupiter 1 Limb	20·8	……	49·5	……	18·9	40	49·73	+ 0·53	……….	+ 12·24	6	41	2·50
	Jupiter 2 Limb	……	38·7	……	7·8	……	40	53·25	+ 0·53	……….	+ 12·24	6	41	6·02
	α Ursæ Minor. S.P.	……	……	……	30·8	36·5	0	20·70	+ 19·09	……….	+ 12·21	13	0	52·00
	Microm.	……	……	……	24·0	……								
Jan. 13	Sun 1 Limb	0·0	14·4	28·8	43·3	57·8	35	28·86	+ 0·94	……….	+ 12·17	19	35	41·97
	Sun 2 Limb	20·9	35·2	49·5	3·9	18·4	37	49·58	+ 0·94	……….	+ 12·17	19	38	2·69
	α Andromedæ	11·3	26·3	41·3	56·5	11·5	59	41·38	+ 0·47	+ 12·11	+ 12·15	23	59	54·00
	γ Pegasi	6·5	20·1	33·8	47·6	1·3	4	33·86	+ 0·61	12·21	+ 12·15	0	4	46·62
	α Aurigæ	45·2	4·2	23·3	42·3	1·3	4	23·26	+ 0·23	12·10	+ 12·14	5	4	35·63
	β Orionis	0·3	13·8	27·2	40·5	53·8	6	27·12	+ 0·81	12·03	+ 12·14	5	6	40·07
	β Tauri	13·4	28·4	43·5	58·5	13·8	15	43·52	+ 0·47	12·18	+ 12·14	5	15	56·13
	δ Ursæ Minor. S.P.	6·0	48·5	31·0	15·5	59·5	24	31·92	+ 9·12	……….	+ 12·14	6	24	53·18
	Microm.	……	40·0	……	22·5	……								
	Juno	45·6	59·0	12·5	26·0	39·3	27	12·48	+ 0·72	……….	+ 12·14	6	27	25·34
	Jupiter 1 Limb	……	2·0	……	31·1	……	40	16·55	+ 0·53	……….	+ 12·14	6	40	29·22
	Jupiter 2 Limb	51·1	……	20·1	……	49·0	40	20·07	+ 0·53	……….	+ 12·14	6	40	32·74
	Moon 2 Limb	54·0	8·4	23·1	37·8	52·6	44	23·18	+ 0·96	……….	+ 12·17	15	44	36·31
Jan. 14	α Tauri	50·7	4·4	18·4	32·3	46·2	26	18·40	+ 0·60	+ 12·17	+ 12·21	4	26	31·21
	β Orionis	0·0	13·5	26·9	40·3	54·0	6	26·94	+ 0·81	12·21	+ 12·21	5	6	39·96
	ι Herculis S.P.	56·3	15·5	34·8	54·0	13·0	34	34·72	+ 1·26	……….	+ 12·21	5	34	48·19
	α Orionis	38·5	51·8	5·4	18·7	31·9	46	5·26	+ 0·68	12·21	+ 12·21	5	46	18·15
	δ Ursæ Minor. S.P.	6·0	48·5	31·5	14·0	59·0	24	32·00	+ 9·12	……….	+ 12·20	6	24	53·32
	Microm.	……	41·0	……	……	……								
	Juno	2·5	16·0	29·4	42·8	56·0	26	29·34	+ 0·72	……….	+ 12·20	6	26	42·26
	α Canis Majoris	15·3	29·1	43·0	56·8	10·6	37	42·96	+ 0·89	12·02	+ 12·20	6	37	56·05
	Jupiter 1 Limb	14·5	……	43·5	……	12·4	39	43·47	+ 0·52	……….	+ 12·20	6	39	56·19
	Jupiter 2 Limb	……	32·5	……	1·5	……	39	47·00	+ 0·52	……….	+ 12·20	6	39	59·72
	⁎ D + 16° 59′	42·0	55·8	9·7	23·5	37·6	14	9·72	+ 0·59	……….	+ 12·20	7	14	22·51
	⁎ D + 17° 9′	11·5	25·4	39·3	53·4	7·4	16	39·40	+ 0·59	……….	+ 12·20	7	16	52·19
	⁎ D + 48° 22′	30·4	50·5	10·4	30·2	50·3	27	10·36	+ 0·18	……….	+ 12·19	7	27	22·73
	α Canis Minoris	3·8	17·0	30·2	43·6	57·0	30	30·32	+ 0·69	12·42	+ 12·19	7	30	43·20

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Jan. 15	Sun 1 Limb	38·6	52·8	7·0	21·4	35·8	44 7·12	+ 0·93	....	+ 12·07	19 44 20·12
	Sun 2 Limb	58·6	12·8	27·3	41·7	55·9	46 27·26	+ 0·93	....	+ 12·07	19 46 40·26
	α Andromedæ	11·2	26·2	41·3	56·4	11·6	59 41·34	+ 0·47	+ 12·13	+ 12·03	23 59 53·84
	γ Pegasi	6·3	20·0	34·0	47·7	......	4 33·86	+ 0·61	12·19	+ 12·03	0 4 46·50
	α Ursæ Minoris	32·5	41·0	49·5	57·0	7·5	0 49·04	− 17·61	....	+ 12·02	1 0 43·45
	Microm.	......	44·5	......	52·0	......					
	α Arietis	14·4	28·8	43·3	57·7	12·2	57 43·28	+ 0·53	12·05	+ 12·01	1 57 55·82
	ξ¹ Arietis	22·0	35·5	49·1	2·7	16·1	15 49·08	+ 0·65	....	+ 12·00	2 16 1·73
	β Tauri	13·5	28·5	43·7	59·0	14·1	15 43·76	+ 0·47	11·94	+ 12·02	5 15 56·25
	α Orionis	38·9	52·4	5·8	19·3	32·6	46 5·80	+ 0·68	11·67	+ 12·03	5 46 18·51
	δ Ursæ Minor. S. P.	4·5	48·0	31·5	......	......	24 31·66	+ 9·12	....	+ 12·03	6 24 52·81
	Microm.	......	40·0	......	24·0	......					
	δ Ursæ Minoris	22·0	5·0	48·0	31·5	15·0	24 48·23	− 7·64	....	+ 12·14	18 24 52·73
	Microm.	......	57·0	......	39·5	......					
	α Aquilæ	5·3	18·6	32·0	45·5	59·0	42 32·08	+ 0·67	+ 12·10	+ 12·16	19 42 44·91
Jan. 16	Sun 1 Limb	......	.....	25·0	39·4	53·7	48 25·07	+ 0·93	....	+ 12·16	19 48 38·16
	Sun 2 Limb	16·5	30·8	45·1	59·2	13·5	50 45·02	+ 0·93	....	+ 12·16	19 50 58·11
	α Cygni	58·5	16·8	35·6	54·2	13·0	35 35·60	+ 0·25	12·24	+ 12·16	20 35 48·01
	Microm.	......	26·3	......	44·8	......					
	Venus 1 Limb	31·7	45·6	0·0	13·6	27·6	33 59·70	+ 0·88	....	+ 12·17	21 34 12·75
	α Tauri	50·6	4·5	18·3	32·2	46·1	26 18·34	+ 0·60	12·22	+ 12·23	4 26 31·17
	α Aurigæ	44·8	3·8	23·0	42·1	1·2	4 22·96	+ 0·23	12·37	+ 12·24	5 4 35·43
	Microm.	......	13·5	......	32·3	......					
	β Orionis	0·3	13·5	27·0	40·4	53·8	6 27·00	+ 0·81	12·13	+ 12·24	5 6 40·05
	β Tauri	13·0	28·3	43·4	58·6	13·8	15 43·42	+ 0·47	12·27	+ 12·24	5 15 56·13
	⁎ D + 35° 15′	36·8	52·5	9·3	25·8	42·3	41 9·34	+ 0·37	....	+ 12·24	5 41 21·95
	δ Ursæ Minor. S. P.	4·0	46·5	......	15·5	57·5	24 31·23	+ 9·12	....	+ 12·25	6 24 52·60
	Microm.	......	40·5	......	23·0	......					
	Juno	39·8	53·0	6·3	19·8	33·0	25 6·38	+ 0·72	....	+ 12·25	6 25 19·35
	Jupiter 1 Limb	......	23·7	......	52·8	......	38 38·25	+ 0·52	....	+ 12·25	6 38 51·02
	Jupiter 2 Limb	13·1	......	42·1	......	11·1	38 42·10	+ 0·52	....	+ 12·25	6 38 54·87
	⁎ D + 17° 9′	......	25·0	39·0	53·1	7·0	16 39·07	+ 0·59	....	+ 12·25	7 16 51·91
Jan. 18	δ Ursæ Minoris	20·5	4·0	47·5	30·5	15·0	24 47·58	− 5·65	....	+ 12·60	18 24 54·53
	Microm.	......	56·0	......	39·0	......					
	α Lyræ	34·1	51·4	8·0	25·2	42·3	31 8·20	+ 0·26	+ 12·64	+ 12·60	18 31 21·06
	α Aquilæ	5·0	18·5	31·8	45·3	58·8	42 31·88	+ 0·49	12·51	+ 12·61	19 42 44·98
Jan. 19	Sun 1 Limb	46·2	0·4	14·7	28·8	43·0	1 14·62	+ 0·69	....	+ 12·61	20 1 27·92
	Sun 2 Limb	5·8	19·8	34·1	48·2	2.8	3 34·14	+ 0·69	....	+ 12·61	20 3 47·44
	α Cygni	58·0	16·4	35·2	53·8	12·8	35 35·23	+ 0·18	12·68	+ 12·61	20 35 48·02
	Microm.	......	25·9	......	44·5	......					
	Venus 1 Limb	8·7	22·3	36·0	50·0	3·8	48 36·16	+ 0·65	....	+ 12·61	21 48 49·42
Jan. 21	α Aquilæ	5·0	18·4	31·7	45·2	59·0	42 31·86	+ 0·49	+ 12·57	+ 12·57	19 42 44·92
Jan. 22	Sun 1 Limb	29·5	43·8	58·0	12·4	26·7	13 58·08	+ 0·68	....	+ 12·57	20 14 11·33
	Sun 2 Limb	48·7	2·6	17·0	31·2	45·4	16 16·98	+ 0·68	....	+ 12·57	20 16 30·23
	α Cygni	58·0	16·6	35·4	54·0	12·8	35 35·30	+ 0·18	12·62	+ 12·57	20 35 48·05
	Microm.	......	25·8	......	44·5	......					
	Venus 1 Limb	33·8	47·4	1·3	14·5	28·6	3 1·12	+ 0·64	....	+ 12·57	22 3 14·33
	Moon 1 Limb	32·3	46·1	0·0	13·6	27·2	57 59·84	+ 0·61	....	+ 12·57	23 58 13·02
	α Andromedæ	10·8	25·8	40·9	55·8	11·2	59 40·90	+ 0·35	12·60	+ 12·57	23 59 53·82
	γ Pegasi	6·0	19·8	33·4	47·1	0·8	4 33·42	+ 0·46	12·71	+ 12·57	0 4 46·45
	α Cassiopeæ	12·8	36·2	59·8	23·3	46·9	30 59.80	+ 0·01	....	+ 12·56	0 31 12·37
	Microm.	......	48·1	......	11·5	......					

Date.	OBJECT OBSERVED.	Wire					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Jan. 22	α Ursæ Minoris	23·0	30·0	39·0	47·0	58·0	0 38·97	− 13·03	....	+ 12·56	1 0 38·50
	............Microm.	......	34·0	......	42·5	......					
	α Tauri	50·5	4·3	18·3	32·2	46·2	26 18·30	+ 0·44	+ 12·37	+ 12·53	4 26 31·27
Jan. 24	α Andromedæ	11·3	26·3	41·3	56·4	11·5	59 41·33	+ 0·35	+ 12·15	+ 12·22	23 59 53·90
	............Microm.	......	33·8	......	48·7	......					
	γ Pegasi	6·7	20·1	33·8	47·4	1·1	4 33·77	+ 0·46	12·34	+ 12·22	0 4 46·45
	............Microm.	......	26·8	......	40·5	......					
	α Cassiopeæ	13·1	36·5	0·3	23·8	47·4	31 0·21	+ 0·01	....	+ 12·22	0 31 12·44
	............Microm.	......	48·5	......	11·9	......					
	Moon 1 Limb	12·5	25·8	39·8	53·4	7·0	31 39·70	+ 0·53	....	+ 12·22	1 31 52·45
	α Arietis	14·4	28·8	43·1	57·5	12·0	57 43·16	+ 0·40	12·18	+ 12·22	1 57 55·78
Jan. 25	Sun 1 Limb	6·5	20·5	34·5	48·7	2·9	26 34·62	+ 0·68	....	+ 12·23	20 26 47·53
	Sun 2 Limb	24·3	38·5	52·8	6·8	20·8	28 52·64	+ 0·68	....	+ 12·23	20 29 5·55
	α Geminor. preceding	23·7	......	55·3	......	26·9	23 55·30	+ 0·32	+ 12·13	+ 12·23	7 24 7·85
	α Geminor. following	......	40·0	......	11·6	......	23 55·80	+ 0·32		+ 12·23	7 24 8·35
	α Canis Minoris	4·0	17·3	30·6	44·0	57·6	30 30·70	+ 0·51	12·30	+ 12·23	7 30 43·44
	β Geminorum	34·0	49·3	4·7	19·7	34·4	35 4·42	+ 0·35	12·25	+ 12·23	7 35 17·00
Jan. 26	Sun 1 Limb	16·7	30·7	44·7	58·8	13·0	30 44·78	+ 0·68	....	+ 12·31	20 30 57·77
	Sun 2 Limb	34·4	48·4	2·6	16·7	30·8	33 2·58	+ 0·68	....	+ 12·31	20 33 15·57
	Venus 1 Limb	30·0	43·8	56·9	10·8	24·6	21 57·22	+ 0·63	....	+ 12·32	22 22 10·17
	α Andromedæ	11·0	26·0	41·0	56·2	11·3	59 41·10	+ 0·35	+ 12·36	+ 12·33	23 59 53·78
	γ Pegasi	6·1	19·9	33·7	47·4	1·2	4 33·66	+ 0·46	12·44	+ 12·33	0 4 46·45
	α Ursæ Minoris	17·0	25·0	33·0	41·5	......	0 32·71	− 13·03	....	+ 12·34	1 0 32·02
	............Microm.	......	29·5	......	36·0	......					
	α Orionis	38·6	52·0	5·6	18·8	32·4	46 5·48	+ 0·50	12·13	+ 12·37	5 46 18·35
	δ Ursæ Minoris	21·0	3·5	47·5	30·5	14·5	24 47·23	− 5·65	....	+ 12·49	18 24 54·07
	............Microm.	......	56·0	......	38·0	......					
	α Lyræ	34·4	51·4	8·5	25·4	42·5	31 8·44	+ 0·26	12·55	+ 12·50	18 31 21·20
	............Microm.	......	0·0	......	16·9	......					
	α Aquilæ	5·1	18·5	31·8	45·4	59·0	42 31·96	+ 0·49	+ 12·54	+ 12·51	19 42 44·96
Jan. 27	Moon 1 Limb	5·6	19·8	34·0	48·9	3·3	53 34·32	+ 0·43	....	+ 12·56	3 53 47·31
	δ^1 Tauri	48·5	2·3	16·1	30·1	44·3	13 16·26	+ 0·44	....	+ 12·56	4 13 29·26
	ε Tauri	21·6	35·5	......	......	......	18 49·62	+ 0·42	....	+ 12·56	4 19 2·60
	α Tauri	50·0	4·3	18·0	31·7	45·5	26 17·90	+ 0·44	12·72	+ 12·56	4 26 30·90
	β Tauri	13·0	28·0	43·1	58·4	13·6	15 43·22	+ 0·35	12·53	+ 12·54	5 15 56·11
	α Leporis	49·5	3·4	17·5	31·5	45·4	25 17·43	+ 0·67	....	+ 12·54	5 25 30·64
	............Microm.	......	10·4	......	24·3	......					
	ι Herculis S.P.	56·8	15·9	35·0	54·2	13·4	34 35·03	+ 0·93	....	+ 12·54	5 34 48·50
	............Microm.	......	25·5	......	44·4	......					
	α Orionis	38·2	51·7	5·2	18·5	31·8	46 5·08	+ 0·50	12·53	+ 12·54	5 46 18·12
Jan. 28	Moon 1 Limb	8·8	23·3	37·8	52·3	6·9	44 37·82	+ 0·40	....	+ 12·20	4 44 50·42
	β Orionis	0·4	13·8	27·0	40·6	54·0	6 27·16	+ 0·60	+ 12·10	+ 12·19	5 6 39·95
	109 Tauri	44·8	59·0	13·3	27·7	42·0	9 13·36	+ 0·40	....	+ 12·19	5 9 25·95
	β Tauri	13·4	28·3	43·5	58·6	13·8	15 43·52	+ 0·35	12·22	+ 12·19	5 15 56·06
	α Leporis	50·0	3·8	17·8	32·0	45·8	25 17·88	+ 0·67	....	+ 12·19	5 25 30·74
	ι Herculis S. P.	56·6	15·8	35·0	54·1	13·3	34 34·96	+ 0·93	....	+ 12·19	5 34 48·08
	α Orionis	38·8	52·2	5·4	19·9	32·5	46 5·58	+ 0·50	12·03	+ 12·18	5 46 18·26
	Jupiter 1 Limb	17·3	......	46·2	......	15·2	32 46·23	+ 0·39	....	+ 12·17	6 32 58·79
	Jupiter 2 Limb	......	35·2	......	4·1	......	32 49·65	+ 0·39	....	+ 12·17	6 33 2·21
	α Canis Majoris	15·2	29·3	43·2	57·0	11·0	37 43·14	+ 0·66	12·06	+ 12·16	6 37 55·96
	(a) α Cygni	58·2	17·0	35·7	54·5	13·3	35 35·64	+ 0·18	12·31	+ 12·06	20 35 47·88
	............Microm.	.... .	26·3	......	45·0	......					

(a) The reduction to Wire III. should have been 35^{s}·71.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s	m. s.	s.	s.	s.	h. m. s.
Jan. 29	Sun 1 Limb…………	43·3	57·3	11·4	25·4	39·4	43 11·36	+ 0·67	………	+ 12·06	20 43 24·09
	Sun 2 Limb…………	0·5	14·4	28·5	42·5	56·6	45 28·50	+ 0·67	………	+ 12·06	20 45 41·23
	α Ursæ Minoris…….	17·5	25·5	33·0	40·0	53·5	0 33·33	− 13·03	………	+ 12·03	1 0 32·33
	…………*Microm.* ….	……	28·5	……	36·0	……					
	α Tauri………………	51·1	5·0	18·6	32·7	46·2	26 18·72	+ 0·44	+ 11·88	+ 12·00	4 26 31·16
	α Aurigæ……………	44·8	3·9	23·1	42·2	1·5	4 23·09	+ 0·17	12·17	+ 12·00	5 4 35·26
	…………*Microm.* ….	……	13·6	……	32·5	……					
	β Orionis……………	0·5	13·8	27·0	40·7	54·2	6 27·24	+ 0·60	12·01	+ 12·00	5 6 39·84
	β Tauri………………	13·6	28·3	43·3	58·8	14·0	15 43·60	+ 0·35	12·14	+ 12·00	5 15 55·95
	Moon 1 Limb………	30·4	45·6	0·8	16·0	31·1	38 0·78	+ 0·38	………	+ 12·00	5 38 13·16
	α Orionis……………	39·0	52·3	5·8	19·3	32·6	46 5·80	+ 0·50	11·80	+ 12·00	5 46 18·30
	ϰ Aurigæ……………	13·6	28·8	44·0	59·2	14·5	4 44·02	+ 0·34	………	+ 12·00	6 4 56·36
	μ Geminorum… ……	21·8	36·0	50·3	4·9	19·5	12 50·50	+ 0·40	………	+ 12·00	6 13 2·90
Jan. 30	Sun 1 Limb…………	50·6	4·6	18·5	32·4	46·3	47 18·48	+ 0·67	………	+ 12·01	20 47 31·16
	Sun 2 Limb…………	7·8	21·6	35·6	49·5	3·6	49 35·62	+ 0·67	………	+ 12·01	20 49 48·30
	α Aurigæ……………	45·0	4·2	23·4	42·3	1·3	4 23·26	+ 0·17	+ 11·99	+ 12·01	5 4 35·44
	…………*Microm.* ….	……	13·8	……	32·8	……					
	β Orionis……………	0·4	13·8	27·1	40·7	54·3	6 27·23	+ 0·60	12·01	+ 12·01	5 6 39·84
	…………*Microm.* ….	……	20·5	……	33·8	……					
	β Tauri………………	13·5	28·4	43·7	58·8	14·0	15 43·66	+ 0·35	12·07	+ 12·01	5 15 56·02
	…………*Microm.* ….	……	35·9	……	51·3	……					
	α Leporis……………	50·0	4·0	17·8	31·9	46·0	25 17·93	+ 0·67	………	+ 12·01	5 25 30·61
	…………*Microm.* ….	……	10·9	……	24·9	……					
	α Orionis……………	38·8	52·2	5·4	18·8	32·4	46 5·49	+ 0·50	12·10	+ 12·01	5 46 18·00
	…………*Microm.* ….	……	58·5	……	12·3	……					
	ϰ Aurigæ……………	13·5	28·8	44·0	59·2	14·4	4 43·98	+ 0·34	………	+ 12·01	6 4 56·33
	μ Geminorum………	21·6	36·1	50·5	5·0	19·3	12 50·50	+ 0·40	………	+ 12·00	6 13 2·90
	Jupiter 1 Limb…….	……	41·2	……	10·2	……	31 55·70	+ 0·39	………	+ 12·00	6 32 8·09
	Jupiter 2 Limb…….	30·3	……	59·2	……	28·1	31 59·20	+ 0·39	………	+ 12·00	6 32 11·59
	Moon 1 Limb………	42·5	57·8	13·2	28·0	43·6	33 13·02	+ 0·38	………	+ 12·00	6 33 25·40
	α Canis Majoris…….	15·6	29·3	43·2	57·2	11·2	37 43·30	+ 0·66	11·89	+ 12·00	6 37 55·96
	τ Geminorum………	59·0	14·5	30·0	45·5	1·0	0 30·00	+ 0·33	………	+ 12·00	7 0 42·33
	δ Geminorum………	39·1	53·2	7·7	22·0	36·3	10 7·66	+ 0·40	………	+ 11·99	7 10 20·05
Jan. 31	α Cygni………………	59·0	17·6	36·2	54·8	13·8	35 36·24	+ 0·18	+ 11·73	+ 11·64	20 35 48·06
	…………*Microm.* ….	……	26·8	……	45·5	……					
Feb. 1	Sun 1 Limb…………	2·5	16·4	30·6	44·5	58·4	55 30·48	+ 0·66	………	+ 11·64	20 55 42·78
	Sun 2 Limb…………	19·3	32·8	46·8	0·8	14·9	57 46·92	+ 0·66	………	+ 11·64	20 57 59·22
	α Andromedæ………	11·7	26·8	41·8	56·8	12·0	59 41·82	+ 0·35	11·57	+ 11·61	23 59 53·78
	α Ursæ Minoris…….	17·0	25·0	32·5	……	……	0 33·37	− 13·03	………	+ 11·60	1 0 31·94
	α Aurigæ……………	45·3	4·7	23·8	42·7	2·0	4 23·69	+ 0·17	11·53	+ 11·56	5 4 35·42
	…………*Microm.* ….	……	14·2	……	33·1	……					
	β Orionis……………	0·8	14·2	27·6	41·3	54·7	6 27·72	+ 0·60	11·50	+ 11·56	5 6 39·88
	β Tauri………………	14·1	29·1	44·1	59·3	14·4	15 44·20	+ 0·35	11·51	+ 11·56	5 15 56·11
	α Leporis……………	50·2	4·2	18·2	32·0	46·2	25 18·14	+ 0·67	………	+ 11·55	5 25 30·36
	…………*Microm.* ….	……	11·2	……	25·0	……					
	ι Herculis S. P.………	57·5	17·0	36·0	55·5	14·5	34 36·19	+ 0·93	………	+ 11·55	5 34 48·67
	…………*Microm.* ….	……	26·8	……	46·0	……					
	α Orionis……………	39·3	52·4	6·0	19·3	32·8	46 5·96	+ 0·50	11·62	+ 11·55	5 46 18·01
	Juno…………………	28·9	42·3	55·8	9·3	22·6	17 55·78	+ 0·52	………	+ 11·55	6 18 7·85
	δ Ursæ Minor. S.P.…	……	52·0	36·0	19·5	……	24 36·06	+ 6·75	………	+ 11·54	6 24 54·35
	…………*Microm.* ….	……	45·0	……	28·0	……					
	Jupiter 1 Limb…….	39·0	……	8·0	……	36·9	31 7·97	+ 0·39	………	+ 11·54	6 31 19·90
	Jupiter 2 Limb…….	……	57·0	……	25·8	……	31 11·40	+ 0·39	………	+ 11·54	6 31 23·33
	⁎ D + 39° 45′…. ….	44·3	1·5	18·8	36·0	53·3	44 18·78	+ 0·24	………	+ 11·54	6 44 30·56
	⁎ D + 39° 45′………	44·6	2·0	19·3	36·6	53·8	47 19·26	+ 0·24	………	+ 11·54	6 47 31·04

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Feb. 1	φ Geminorum·········	46·4	1·3	16·2	31·0	46·1	43 16·20	+ 0·36	·········	+11·53	7 43 28·09
	6 Cancri ···············	45·2	0·2	15·3	30·4	45·5	53 15·32	+ 0·35	·········	+11·53	7 53 27·20
	Moon 1 Limb·········	31·4	46·4	1·0	16·1	30·9	25 1·16	+ 0·40	·········	+11·52	8 25 13·08
	ξ Cancri···············	······	29·9	44·4	58·7	13·3	59 44·37	+ 0·40	·········	+11·52	8 59 56·29
Feb. 2	Sun 1 Limb···········	7·3	21·3	35·2	49·2	3·1	59 35·22	+ 0·66	·········	+11·39	20 59 47·27
	Sun 2 Limb········· ··	23·7	37·7	51·7	5·6	19·5	1 51·64	+ 0·66	·········	+11·39	21 2 3·69
	α Orionis···············	39·5	52·8	6·3	19·6	33·0	46 6·24	+ 0·50	+11·33	+11·30	5 46 18·04
	δ Ursæ Minor. S.P.···	10·0	54·0	36·5	20·0	4·0	24 36·78	+ 6·75	····· ····	+11·29	6 24 54·82
	············*Microm.* ····	······	45·0	······	27·5	······					
	Jupiter 1 Limb········	······	30·8	······	59·8	······	30 45·30	+ 0·39	·········	+11·29	6 30 56·98
	Jupiter 2 Limb········	19·5	······	48·7	······	17·7	30 48·63	+ 0·39	·········	+11·29	6 31 0·31
	α Canis Majoris········	16·4	30·0	44·0	57·8	11·8	37 44·00	+ 0·66	11·17	+11·29	6 37 55·95
	∗ D + 39° 45′·········	44·6	1·8	19·2	36·4	53·8	44 19·16	+ 0·24	·········	+11·29	6 44 30·69
	∗ D + 39° 45′·········	45·0	2·3	19·5	37·0	54·2	47 19·60	+ 0·24	·········	+11·29	6 47 31·13
	∗ D + 17° 9′····· ···	12·2	26·0	40·2	54·0	8·0	16 40·08	+ 0·44	·········	+11·29	7 16 51·81
	α Geminor. preceding	25·0	······	56·3	······	27·7	23 56·33	+ 0·32	11·21	+11·29	7 24 7·94
	α Geminor. following	······	40·8	······	12·5	······	23 56·65	+ 0·32		+11·29	7 24 8·26
	α Canis Minoris·······	5·0	18·3	31·5	44·7	58·2	30 31·54	+ 0·51	11·49	+11·30	7 30 43·35
	β Geminorum··········	35·3	50·3	5·4	20·5	35·7	35 5·44	+ 0·35	11·26	+11·30	7 35 17·09
	Moon 2 Limb··········	13·4	27·8	42·5	57·0	11·5	21 42·44	+ 0·43	·········	+11·31	9 21 54·18
Feb. 3	Sun 1 Limb···········	11·5	25·0	39·0	52·8	7·0	3 39·06	+ 0·66	·········	+11·40	21 3 51·12
	Sun 2 Limb···········	27·3	41·3	55·2	9·2	23·1	5 55·22	+ 0·66	·········	+11·40	21 6 7·28
	α Aurigæ···············	45·4	4·5	23·6	42·8	2·0	4 23·69	+ 0·17	+11·50	+11·46	5 4 35·32
	············*Microm.* ····	······	14·3	······	33·2	······					
	β Orionis···············	0·8	14·2	27·6	41·2	54·8	6 27·72	+ 0·60	11·47	+11·46	5 6 39·78
	β Tauri·················	14·0	29·1	44·3	59·4	14·6	15 44·28	+ 0·35	11·40	+11·46	5 15 56·09
Feb. 4	Sun 2 Limb···········	······	43·8	57·7	11·8	25·8	9 57·82	+ 0·66	·········	+11·63	21 10 10·11
	α Andromedæ·········	11·5	26·7	41·5	56·6	11·8	59 41·62	+ 0·35	+11·74	+11·66	23 59 53·63
	γ Pegasi················	7·0	20·8	34·3	48·0	1·8	4 34·38	+ 0·46	11·64	+11·66	0 4 46·50
	α Ursæ Minoris·······	······	······	32·0	39·0	50·0	0 32·10	−13·03	·········	+11·67	1 0 30·74
	············*Microm.* ····	······	29·5	····	36·0	······					
	α Aurigæ···············	45·4	4·4	23·5	42·6	1·8	4 23·54	+ 0·17	11·63	+11·71	5 4 35·42
	β Orionis···············	0·8	14·0	27·4	40·8	54·4	6 27·48	+ 0·60	11·70	+11·71	5 6 39·79
	β Tauri·················	13·5	28·7	44·0	59·2	14·3	15 43·94	+ 0·35	11·73	+11·72	5 15 56·01
	α Leporis···············	50·0	4·1	18·0	32·0	46·1	25 17·99	+ 0·67	·········	+11·72	5 25 30·38
	············*Microm.* ····	······	10·8	······	24·9	······					
Feb. 5	α Geminor. preceding	24·0	······	55·3	······	26·7	23 55·33	+ 0·32	+11·97	+12·04	7 24 7·69
	α Geminor. following	······	40·4	······	11·8	······	23 56·10	+ 0·32		+12·04	7 24 8·46
	β Geminorum ········	34·5	49·7	4·8	······	······	35 4·79	+ 0·35	11·91	+12·04	7 35 17·18
	δ Ursæ Minoris········	26·0	7·0	51·5	······	······	24 51·38	− 5·65	·········	+12·14	18 24 57·87
	············*Microm.* ····	······	0·0	······	······	······					
	α Lyræ··················	35·1	52·1	9·0	26·0	43·2	31 9·10	+ 0·26	12·13	+12·14	18 31 21·50
	············*Microm.* ····	······	0·7	······	17·6	···· ·					
	α Cygni·················	58·3	16·8	35·6	54·3	13·0	35 35·60	+ 0·18	12·42	+12·16	20 35 47·94
	············*Microm.* ····	······	26·4	······	44·8	······					
Feb. 6	Sun 1 Limb···········	16·9	30·7	44·7	58·5	12·5	15 44·66	+ 0·65	·········	+12·16	21 15 57·47
	Sun 2 Limb···········	32·3	46·3	0·2	14·0	27·8	18 0·12	+ 0·65	·········	+12·16	21 18 12·93
	Mercury 1 Limb······	3·9	17·3	30·6	43·9	57·6	26 30·66	+ 0·61	·········	+12·17	22 26 43·44
	α Pegasi········· ······	54·1	7·5	21·3	35·0	49·0	56 21·37	+ 0·46	+12·24	+12·17	22 56 34·00
	············*Microm.* ····	······	14·5	······	28·2	······					
	Venus 1 Limb········	6·6	19·8	33·4	46·7	0·0	12 33·30	+ 0·59	·········	+12·17	23 12 46·06
	α Ursæ Minoris·······	12·5	20·0	29·5	37·0	48·0	0 29·19	−13·03	·········	+12·19	1 0 28·35
	············*Microm.* ····	······	25·0	······	33·0	······					

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Feb. 6	α Aurigæ	44·3	3·6	23·0	42·0	1·0	4 22·79	+ 0·17	+ 12·35	+ 12·21	5 4 35·17
	Microm.	……	13·3	……	32·3	……					
	β Orionis	0·1	13·3	27·0	40·3	54·0	6 26·94	+ 0·60	12·22	+ 12·21	5 6 39·75
	α Leporis	49·3	3·4	17·3	31·4	45·5	25 17·37	+ 0·67	………	+ 12·21	5 25 30·25
	Microm.	……	10·3	……	24·4	……					
	α Orionis	38·4	51·8	5·3	18·7	32·2	46 5·28	+ 0·50	12·26	+ 12·21	5 46 17·99
	δ Ursæ Minor. S.P.	11·0	55·0	……	……	……	24 37·95	+ 6·75	………	+ 12·21	6 24 56·91
	α Canis Majoris	15·5	29·0	43·0	56·9	10·8	37 43·04	+ 0·66	12·10	+ 12·21	6 37 55·91
	α Geminor. preceding	24·0	……	55·4	……	26·8	23 55·40	+ 0·32	12·11	+ 12·22	7 24 7·94
	α Geminor. following	……	40·1	……	11·4	……	23 55·75	+ 0·32		+ 12·22	7 24 8·29
Feb. 8	γ Aquilæ	46·5	0·0	13·5	27·0	40·6	38 13·52	+ 0·48	+ 12·12	+ 12·37	19 38 26·37
	α Aquilæ	5·6	19·0	32·5	45·9	59·6	42 32·52	+ 0·49	12·19	+ 12·37	19 42 45·38
Feb. 9	α Pegasi	53·9	7·5	21·3	35·0	48·6	56 21·26	+ 0·46	12·34	+ 12·38	22 56 34·10
	Venus 1 Limb	36·2	49·5	3·1	16·6	29·9	26 3·06	+ 0·58	………	+ 12·38	23 26 16·02
	α Ursæ Minoris	10·0	17·0	25·0	……	……	0 25·46	− 13·03	………	+ 12·39	1 0 24·82
	Microm.	……	21·5	……	28·5	……					
	α Aurigæ	44.3	3·5	22·4	41·5	0·8	4 22·54	+ 0·17	12·55	+ 12·51	5 4 35·22
	Microm.	……	13·2	……	32·1	……					
	β Orionis	59·8	13·2	26·5	40·1	53·5	6 26·62	+ 0·60	12·50	+ 12·51	5 6 39·73
	β Tauri	12·8	27·8	43·0	58·2	13·5	15 43·06	+ 0·35	12·55	+ 12·51	5 15 55·92
	α Leporis	49·0	3·2	17·1	31·0	45·0	25 17·09	+ 0·67	………	+ 12·52	5 25 30·28
	Microm.	……	10·3	……	24·0	……					
	Juno	48·6	1·8	15·4	28·5	41·8	17 15·22	+ 0·51	………	+ 12·55	6 17 28·28
	δ Ursæ Minor. S.P.	……	52·0	39·5	……	4·5	24 38·18	+ 6·75	………	+ 12·55	6 24 57·48
	Microm.	……	48·0	……	……	……					
	Jupiter 1 Limb	54·0	……	22·9	……	51·8	28 22·90	+ 0·39	………	+ 12·56	6 28 35·85
	Jupiter 2 Limb	……	11·7	……	40·8	……	28 26·25	+ 0·39	………	+ 12·56	6 28 39·20
	α Canis Majoris	15·1	29·0	42·5	56·3	10·3	37 42·64	+ 0·66	12·48	+ 12·56	6 37 55·86
	⁎ D + 39° 45′	43·8	0·8	18·0	35·0	52·0	44 17·92	+ 0·24	………	+ 12·57	6 44 30·73
	⁎ D + 39° 45′	43·8	1·0	18·3	35·6	52·9	47 18·32	+ 0·24	………	+ 12·57	6 47 31·13
Feb. 10	Sun 1 Limb	13·8	27·4	41·2	55·0	8·8	31 41·24	+ 0·65	………	+ 13·10	21 31 54·99
	Sun 2 Limb	28·2	41·8	55·6	9·5	23·3	33 55·68	+ 0·65	………	+ 13·10	21 34 9·43
	α Andromedæ	10·0	25·0	40·1	55 3	10·4	59 40·16	+ 0·35	+ 13·15	+ 13·18	23 59 53·69
	α Ursæ Minoris	8·0	14·5	22·5	32·0	42·0	0 23·33	− 13·02	………	+ 13·22	1 0 23·53
	Microm.	……	19·0	……	26·0	……					
	β Tauri	12·0	26·8	42·1	57·2	12·4	15 42·10	+ 0·35	13·50	+ 13·37	5 15 55·82
	α Herculis	27·6	41·3	55·0	8·8	22·6	6 55·06	+ 0·45	13·84	+ 13·81	17 7 9·32
	α Ophiuchi	37·0	50·4	4·0	17·8	31·5	27 4·14	+ 0·47	13·69	+ 13·82	17 27 18·43
	δ Ursæ Minoris	24·0	7·0	50·5	33·5	17·0	24 50·37	− 5·65	………	+ 13·86	18 24 58·58
	Microm.	……	59·5	……	41·5	……					
	α Lyræ	33·5	50·5	7·6	24·4	41·6	31 7·51	+ 0·26	13·84	+ 13·86	18 31 21·63
	Microm.	……	59·0	……	16·0	……					
Feb. 11	Sun 1 Limb	10·0	23·8	37·6	51·4	5·4	35 37·64	+ 0·64	………	+ 13·98	21 35 52·26
	Sun 2 Limb	24·6	38·2	52·0	5·8	19·4	37 52·00	+ 0·64	………	+ 13·98	21 38 6·62
	α Pegasi	52·2	6·0	19·6	33·2	47·0	56 19·60	+ 0·46	+ 14·00	+ 14·03	22 56 34·09
	Venus 1 Limb	31·0	44·5	57·8	11·2	24·4	34 57·78	+ 0·58	………	+ 14·06	23 35 12·42
	α Andromedæ	9·2	24·0	39·2	54·1	9·3	59 39·16	+ 0·35	14·14	+ 14·07	23 59 53·58
	α Ursæ Minoris	7·0	14·0	22·0	30·5	40·0	0 22·26	− 13·02	………	+ 14·11	1 0 23·35
	Microm.	……	17·5	……	25·5	……					
	α Orionis	36·4	49·8	3·2	16·5	30·0	46 3·18	+ 0·50	14·31	+ 14·29	5 46 17·97
	Jupiter 1 Limb	……	33·5	……	2·5	……	27 48·00	+ 0·39	………	+ 14·33	6 28 2·72
	Jupiter 2 Limb	22·3	……	51·2	……	20·0	27 51·17	+ 0·39	………	+ 14·33	6 28 5·89
	α Canis Majoris	13·3	27·3	41·0	54·8	8·8	37 41·04	+ 0·66	14·06	+ 14·33	6 37 56·03
	α Herculis	26·5	40·3	54·0	7·8	21·4	6 54·00	+ 0·45	14·93	+ 14·81	17 7 9·26

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Feb. 11	δ Ursæ Minoris	24·0	7·0	50·0	33·0	17·0	24 50·24	− 5·65	·········	+ 14·87	18 24 59·46
	Microm.	······	59·5	······	41·0	······					
Feb. 12	Sun 1 Limb	5·8	19·5	33·0	47·0	······	39 33·17	+ 0·64	·········	+ 15·02	21 39 48·83
	Venus 1 Limb	57·4	10·8	24·2	37·5	50·9	39 24·16	+ 0·57	·········	+ 15·02	23 39 39·75
	α Andromedæ	8·2	23·0	38·3	53·0	8·5	59 38·20	+ 0·35	+ 15·10	+ 15·12	23 59 53·67
	γ Pegasi	3·5	17·0	30·8	44·5	58·3	4 30·82	+ 0·46	15·14	+ 15·12	0 4 46·40
	α Ursæ Minoris	7·0	14·0	22·0	31·5	41·0	0 22·83	− 13·02	·········	+ 15·17	1 0 24·98
	Microm.	······	19·0	······	26·0	······					
	β Orionis	56·9	10·3	23·6	37·0	50·6	6 23·68	+ 0·60	15·40	+ 15·36	5 6 39·64
	β Tauri	10·0	24·9	40·1	55·3	10·4	15 40·14	+ 0·35	15·43	+ 15·37	5 15 55·86
	α Leporis	46·3	0·2	14·2	28·3	42·3	25 14·23	+ 0·67	·········	+ 15·38	5 25 30·28
	Microm.	······	7·3	······	21·0	······					
	ι Herculis S. P.	54·1	13·4	32·5	51·6	10·8	34 32·49	+ 0·93	·········	+ 15·38	5 34 48·80
	Microm.	······	22·9	······	42·1	······					
	α Orionis	35·4	48·7	2·3	15·7	29·0	46 2·22	+ 0·50	15·26	+ 15·39	5 46 18·11
	δ Ursæ Minor. S. P.	······	47·5	36·0	······	1·0	24 33·05	+ 6·75	·········	+ 15·43	6 24 55·23
	Microm.	······	39·0	······	······	······					
	Jupiter 1 Limb	2·2	······	31·1	······	0·2	26 31·17	+ 0·39	·········	+ 15·43	6 26 46·99
	Jupiter 2 Limb	······	20·0	······	49·1	······	26 34·55	+ 0·39	·········	+ 15·43	6 26 50·37
Feb. 13	λ Ursæ Minor. S. P.	······	······	······	55·5	40·0	23 13·70	+ 18·40	·········	+ 16·70	8 23 48·80
	Microm.	······	······	······	33·5	······					
	ι Ursæ Majoris	0·3	20·6	41·0	1·5	21·8	47 41·19	+ 0·13	·········	+ 16·72	8 47 58·04
	Microm.	······	31·4	······	51·7	······					
	α Hydræ	48·4	1·7	15·0	28·4	41·9	19 15·08	+ 0·60	+ 16·76	+ 16·75	9 19 32·43
	α Leonis	54·4	8·0	21·5	35·1	48·5	59 21·50	+ 0·47	16·77	+ 16·78	9 59 38·75
Feb. 16	α Andromedæ	2·8	17·6	32·7	47·8	2·8	59 32·74	+ 0·35	+ 20·53	+ 20·52	23 59 53·61
	α Ursæ Minoris	······	······	11·5	······	29·5	0 11·77	− 13·02	·········	+ 20·58	1 0 19·33
	Microm.	······	······	······	15·0	······					
	α Arietis	5·6	19·8	34·3	48·7	3·0	57 34·28	+ 0·40	20·73	+ 20·64	1 57 55·32
	α Aurigæ	35·5	54·6	13·8	32·9	52·3	4 13·83	+ 0·17	21·11	+ 20·81	5 4 34·81
	Microm.	······	4·3	······	23·4	······					
	β Orionis	51·4	5·2	18·5	31·8	45·4	6 18·46	+ 0·60	20·56	+ 20·81	5 6 39·87
	β Tauri	4·5	19·5	34·7	50·0	5·2	15 34·78	+ 0·35	20·73	+ 20·82	5 15 55·95
	α Leporis	41·1	54·8	8·8	22·8	36·8	25 8·86	+ 0·67	·········	+ 20·82	5 25 30·35
	ι Herculis S. P.	49·0	8·3	27·2	46·5	5·8	34 27·36	+ 0·93	·········	+ 20·83	5 34 49·12
Feb. 17	Sun 1 Limb	31·4	45·0	58·8	12·4	25·8	58 58·68	+ 0·63	·········	+ 21·61	21 59 20·92
	α Ursæ Minoris	······	1·0	······	······	······	0 11·41	− 13·02	·········	+ 21·75	1 0 20·14 †
	(a) Microm.	53·0 57·0	34·0 37·0	55·0 58·0	36·0 ······	16·0 ······					
	INSTRUMENT REVERSED.										
	α Ursæ Minoris	······	······	······	······	······	0 11·58	− 14·08	·········	+ 21·75	1 0 19·25 †
	(b) Microm.	23·0 44·0	4·0 24·5	42·0 25·0	23·0 8·0	3·5 48·0					
	α Arietis	······	18·7	33·2	47·4	1·7	57 33·04	+ 0·42	+ 21·93	+ 21·80	1 57 55·26
	α Aurigæ	34·6	53·8	13·2	32·0	51·2	4 12·97	+ 0·18	21·94	+ 21·95	5 4 35·10
	Microm.	······	3·5	······	22·5	······					
	β Orionis	50·3	3·8	16·9	30·5	43·5	6 17·00	+ 0·65	21·95	+ 21·95	5 6 39·60
	β Tauri	3·0	18·3	33·5	48·7	3·8	15 33·46	+ 0·37	22·01	+ 21·96	5 15 55·79
	α Leporis	39·8	53·7	7·8	21·5	35·5	25 7·60	+ 0·72	·········	+ 21·96	5 25 30·28
	Microm.	······	0·4	······	14·5	······					
	ι Herculis S. P.	48·0	6·8	26·2	45·3	4·5	34 26·09	+ 1·01	·········	+ 21·97	5 34 49·07
	Microm.	······	16·3	······	35·5	······					

(a) Micrometer 9^{r}·8485, 9^{r}·3485, 8^{r}·3485, 7^{r}·8485, 7^{r}·3485, 6^{r}·8485, 6^{r}·3485, 5^{r}·3485 before Wire III.

(b) Micrometer 2^{r}·3485, 2^{r}·8485, 3^{r}·3485, 3^{r}·8485, 4^{r}·3485, 4^{r}·8485, 5^{r}·3485, 6^{r}·8485, 7^{r}·3485, 7^{r}·8485 after Wire III.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h m. s.
Feb. 17	δ Ursæ Minor. S.P.	……	52·0	……	18·5	2·0	24 35·05	+ 7·29	………	+22·02	6 25 4·36
	Microm.	……	42·5	……	……	……					
	Jupiter 1 Limb	49·7	……	18·5	……	47·8	26 18·67	+ 0·42	………	+22·02	6 26 41·11
	Jupiter 2 Limb	……	7·9	……	36·8	……	26 22·35	+ 0·42	………	+22·02	6 26 44·79
	α Canis Majoris	5·4	19·3	33·2	47·2	0·8	37 33·18	+ 0·71	+21·80	+22·03	6 37 55·92
Feb. 20	Sun 1 Limb	2·2	15·7	29·2	42·6	56·4	10 29·22	+ 0·67	………	+25·60	22 10 55·49
	Sun 2 Limb	14·5	28·0	41·5	55·3	8·9	12 41·64	+ 0·67	………	+25·60	22 13 7·91
	α Ursæ Minoris	49·0	58·5	6·5	16·5	21·0	0 6·46	−14·08	………	+25·76	1 0 18·14
	Microm.	……	3·5	……	9·5	……					
	α Aurigæ	20·9	40·1	8·7	28·0	47·1	4 8·93	+ 0·18	+ 25·92	+25·99	5 4 35·10
	Microm.	……	59·4	……	18·3	……					
	β Orionis	46·0	59·4	12·8	26·3	39·8	6 12·86	+ 0·65	26·05	+25·99	5 6 39·50
	β Tauri	59·1	14·3	29·3	44·5	59·6	15 29·36	+ 0·37	26·07	+26·00	5 15 55·73
	α Leporis	35·4	49·4	3·3	17·3	31·2	25 3·32	+ 0·72	………	+26·01	5 25 30·05
	ι Herculis S. P.	44·1	3·3	22·3	41·5	0·8	34 22·40	+ 1·01	………	+26·02	5 34 49·43
	α Orionis	24·4	37·8	51·2	4·7	18·1	45 51·24	+ 0·54	26·10	+26·03	5 46 17·81
	Juno	56·4	9·8	23·3	36·5	50·0	19 23·20	+ 0·53	………	+26·06	6 19 49·79
	δ Ursæ Minor. S.P.	1·0	43·5	27·5	10·5	54·0	24 27·24	+ 7·29	………	+26·06	6 25 0·59
	Microm.	……	36·0	……	……	……					
	Jupiter 1 Limb	……	31·4	……	0·5	……	25 45·95	+ 0·42	………	+26·07	6 26 12·44
	Jupiter 2 Limb	20·2	……	49·2	……	18·2	25 49·20	+ 0·42	………	+26·07	6 26 15·69
	α Canis Majoris	1·2	15·0	29·1	42·8	56·8	37 28·98	+ 0·71	25·97	+26·07	6 37 55·76
Feb. 22	Sun 1 Limb	39·2	52·6	6·3	19·8	33·3	18 6·24	+ 0·66	………	+28·24	22 18 35·14
	Sun 2 Limb	51·2	4·8	18·2	31·8	45·3	20 18·26	+ 0·66	………	+28·24	22 20 47·16
	Venus 1 Limb	56·6	9·8	23·2	36·4	49·6	23 23·12	+ 0·58	………	+28·35	0 23 52·05
	α Ursæ Minoris	……	54·0	2·5	11·5	……	0 2·30	−14·08	………	+28·38	1 0 16·60
	Microm.	……	58·5	……	5·5	……					
	α Arietis	57·8	12·0	26·5	41·0	55·3	57 26·52	+ 0·42	+ 28·38	+28·43	1 57 55·37
	Moon 1 Limb	49·0	3·2	17·2	31·3	45·3	44 17·20	+ 0·51	………	+28·48	2 44 46·19
	δ Arietis	17·8	31·8	46·0	0·1	14·0	1 45·94	+ 0·45	………	+28·49	3 2 14·88
	ζ Arietis	31·0	45·2	59·4	13·5	27·7	4 59·36	+ 0·44	………	+28·50	3 5 28·30
	α Aurigæ	28·0	47·2	6·2	25·2	44·3	4 6·18	+ 0·18	28·62	+28·60	5 4 34·96
	β Orionis	43·4	56·8	10·3	23·8	37·1	6 10·28	+ 0·65	28·60	+28·60	5 6 39·53
	β Tauri	56·4	11·8	27·0	41·8	57·0	15 26·80	+ 0·37	28·60	+28·61	5 15 55·78
	α Leporis	32·8	47·0	0·8	14·8	28·8	25 0·84	+ 0·72	………	+28·62	5 25 30·18
	ι Herculis S. P.	41·5	0·5	20·0	39·3	58·5	34 19·96	+ 1·01	………	+28·62	5 34 49·59
	α Orionis	21·8	35·3	48·5	2·1	15·4	45 48·62	+ 0·54	28·69	+28·63	5 46 17·79
	Juno	43·3	56·5	10·1	23·5	37·1	20 10·10	+ 0·53	………	+28·65	6 20 39·28
	δ Ursæ Minor. S.P.	59·0	……	……	9·0	52·5	24 25·72	+ 7·29	………	+28·66	6 25 1·67
	Microm.	……	35·0	……	……	……					
	Jupiter 1 Limb	……	14·0	……	42·8	……	25 28·40	+ 0·42	………	+28·66	6 25 57·48
	Jupiter 2 Limb	2·6	……	31·5	……	0·6	25 31·57	+ 0·42	………	+28·66	6 26 0·65
Feb. 23	Sun 1 Limb	26·7	40·4	54·0	7·5	20·9	21 53·90	+ 0·66	………	+29·36	22 22 23·92
	Sun 2 Limb	38·6	52·0	5·5	19·3	32·6	24 5·60	+ 0·66	………	+29·36	22 24 35·62
	α Ursæ Minoris	……	……	0·0	9·0	16·0	0 0·38	−14·08	………	+29·48	1 0 15·78
	Microm.	……	……	……	4·5	……					
	α Ceti	45·3	58·5	12·0	25·3	38·7	53 11·96	+ 0·57	+ 29·49	+29·56	2 53 42·09
	δ Arietis	16·8	30·9	45·0	59·0	12·9	1 44·92	+ 0·45	………	+29·57	3 2 14·94
	Moon 1 Limb	……	……	……	5·5	19·8	32 51·04	+ 0·47	………	+29·59	3 33 21·10
	37 Tauri	1·5	15·8	30·0	44·4	58·5	54 30·04	+ 0·43	………	+29·60	3 55 0·07
	(*a*) α Aurigæ	26·2	45·3	4·4	23·5	42·5	4 4·38	+ 0·18	30·40	+29·65	…………
	β Orionis	42·1	55·7	9·2	22·6	35·9	6 9·10	+ 0·65	29·76	+29·65	5 6 39·40
	β Tauri	55·2	10·7	25·5	40·8	56·0	15 25·64	+ 0·37	29·74	+29·66	5 15 55·67
	α Orionis	21·0	34·3	47·7	1·2	14·3	45 47·70	+ 0·54	29·59	+29·68	5 46 17·92

(*a*) No use is made of this observation, as it gives a different correction of the Clock from the others.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Feb. 23	δ Ursæ Minor. S. P.	59·0	42·0	......	8·0	52·0	24 25·08	+ 7·29	....	+29·70	6 25 2·07
	............*Microm.*	......	33·5	......	......	......					
	Jupiter 1 Limb	51·9	......	21·0	......	49·9	25 20·93	+ 0·42	....	+29·70	6 25 51·05
	Jupiter 2 Limb	......	9·5	......	38·4	......	25 23·95	+ 0·42	....	+29·70	6 25 54·07
Feb. 25	Sun 1 Limb	0·6	13·9	27·5	41·2	54·7	29 27·58	+ 0·66	....	+31·31	22 29 59·55
	Sun 2 Limb	11·9	25·5	38·8	52·5	6·0	31 38·94	+ 0·66	....	+31·31	22 32 10·91
	Jupiter 1 Limb	......	54·3	......	23·3	......	25 8·80	+ 0·42	....	+31·63	6 25 40·85
	Jupiter 2 Limb	42·8	......	12·2	......	41·2	25 12·07	+ 0·42	....	+31·63	6 25 44·12
	α Canis Majoris	55·3	9·2	23·1	37·1	51·0	37 23·14	+ 0·71	+31·73	+31·63	6 37 55·48
	α Geminor. preceding	4·3	......	35·8	......	7·3	23 35·80	+ 0·34	31·57	+31·67	7 24 7·81
	α Geminor. following	......	20·5	......	51·8	......	23 36·15	+ 0·34		+31·67	7 24 8·16
Feb. 26	Moon 1 Limb	46·0	1·5	16·6	31·8	47·3	10 16·64	+ 0·40	....	+32·78	6 10 49·82
Feb. 27	Sun 1 Limb	31·7	45·0	58·6	12·1	25·5	36 58·58	+ 0·65	....	+33·58	22 37 32·81
	Sun 2 Limb	42·7	56·3	9·6	23·2	36·6	39 9·68	+ 0·65	....	+33·58	22 39 43·91
Feb. 29	Sun 1 Limb	0·3	13·5	26·9	40·5	54·1	44 27·06	+ 0·65	....	+35·92	22 45 3·63
	Sun 2 Limb	10·8	24·3	37·6	51·3	4·8	46 37·76	+ 0·65	....	+35·92	22 47 14·33
	α Andromedæ	47·1	2·0	17·2	32·3	47·3	59 17·18	+ 0·38	+35·99	+35·98	23 59 53·54
	α Aurigæ	20·5	39·3	58·5	17·5	36·5	3 58·46	+ 0·18	36·18	+36·23	5 4 34·87
	δ Ursæ Minor. S. P.	53·0	35·5	......	2·0	46·0	24 18·85	+ 7·29	....	+36·29	6 25 2·43
	............*Microm.*	......	28·0	......	9·0	......					
	Jupiter 1 Limb	25·7	......	54·7	......	23·7	24 54·70	+ 0·42	....	+36·29	6 25 31·41
	Jupiter 2 Limb	......	43·3	......	12·3	......	24 57·80	+ 0·42	....	+36·29	6 25 34·51
	α Canis Majoris	50·8	4·6	18·3	32·2	46·2	37 18·42	+ 0·71	36·39	+36·29	6 37 55·42
	α Geminor. preceding	59·5	......	31·0	......	2·4	23 30·97	+ 0·34	36·23	+36·34	7 24 7·65
	α Geminor. following	......	15·9	......	47·3	......	23 31·60	+ 0·34		+36·34	7 24 8·28
	α Canis Minoris	39·8	53·1	6·3	19·5	33·0	30 6·34	+ 0·55	36·49	+36·34	7 30 43·23
	β Geminorum	10·1	25·1	40·2	55·3	10·5	34 40·24	+ 0·37	36·30	+36·35	7 35 16·96
Mar. 2	α Aurigæ	18·0	37·1	56·2	15·2	34·2	3 56·14	+ 0·18	+38·46	+38·40	5 4 34·72
	β Orionis	33·4	46·9	0·4	13·8	27·3	6 0·36	+ 0 65	38·37	+38·40	5 6 39·41
	β Tauri	46·5	1·6	16·8	32·0	47·1	15 16·80	+ 0·37	38·44	+38·41	5 15 55·58
	α Leporis	22·8	36·7	50·6	4·5	18·6	24 50·64	+ 0·72	....	+38·42	5 25 29·78
	α Orionis	11·9	25·3	38·5	52·0	5·3	45 38·60	+ 0·54	38·57	+38·44	5 46 17·58
	δ Ursæ Minor. S. P.	52·0	35·0	......	1·5	45·0	24 17·18	+ 7·29	....	+38·47	6 25 2·94
	............*Microm.*	......	29·0	......	11·0	......					
	Jupiter 1 Limb	......	38·4	......	7·3	......	24 52·85	+ 0·42	....	+38·47	6 25 31·74
	Jupiter 2 Limb	26·8	......	56·0	......	25·2	24 56·00	+ 0·42	....	+38·47	6 25 34·89
	α Canis Majoris	48·7	2·5	16·3	30·2	44·1	37 16·36	+ 0·71	38·42	+38·48	6 37 55·55
	α Geminor. preceding	57·4	......	28·6	......	0·3	23 28·77	+ 0·34	38·41	+38·52	7 24 7·63
	α Geminor. following	......	13·8	......	45·0	......	23 29·40	+ 0·34		+38·52	7 24 8·26
	γ Leonis	48·8	3·0	17·2	31·4	45·5	10 17·18	+ 0·44	....	+38·66	10 10 56·28
	ϱ Leonis	5·3	18·5	32·0	45·5	59·1	23 32·08	+ 0·52	....	+38·67	10 24 11·27
	Moon 1 Limb	11·4	25·3	39·3	53·3	7·3	42 39·32	+ 0·52	....	+38·68	10 43 18·52
	73 Leonis	11·2	25·0	38·6	52·3	6·0	6 38·62	+ 0·49	....	+38·70	11 7 17·81
	ι Leonis	17·0	30·5	44·0	57·6	11·3	14 44·08	+ 0·51	....	+38·71	11 15 23·30
Mar. 3	Sun 1 Limb	9·2	22·6	36·0	49·5	2·8	55 36·02	+ 0·64	....	+39·31	22 56 15·97
	Sun 2 Limb	19·6	33·0	46·4	0·0	13·3	57 46·46	+ 0·64	....	+39·31	22 58 26·41
	α Andromedæ	43·6	58·7	14·0	29·1	44·0	59 13·88	+ 0·38	+39·29	+39·36	23 59 53·62
	α Ursæ Minoris	29·5	38·0	......	......	2·0	59 46·82	−14·07	....	+39·41	1 0 12·16
	............*Microm.*	......	......	......	52·0	......					
	Venus 1 Limb	43·0	56·3	9·8	23·3	36·7	7 9·82	+ 0·54	....	+39·41	1 7 49·77
	α Arietis	46·5	0·8	15·3	29·8	44·3	57 15·34	+ 0·42	39·44	+39·46	1 57 55·22
	β Tauri	45·3	0·4	15·5	30·6	45·7	15 15·50	+ 0·37	39·72	+39·62	5 15 55·49

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Mar. 3	δ Ursæ Minor. S. P.	……	……	……	1·0	44·5	24 17·95	+ 7·29	………	+ 39·67	6 25 4·91
	Jupiter 1 Limb	24·3	……	53·2	……	22·2	24 53·23	+ 0·42	………	+ 39·67	6 25 33·32
	Jupiter 2 Limb	……	42·0	……	10·8	……	24 56·40	+ 0·42	………	+ 39·67	6 25 36·49
	α Canis Majoris	47·3	1·2	15·1	28·8	42·8	37 15·04	+ 0·71	+ 39·73	+ 39·68	6 37 55·43
	α Geminor. preceding	56·3	……	27·8	……	59·3	23 27·80	+ 0·34	39·47	+ 39·72	7 24 7·86
	α Geminor. following	……	12·4	……	44·0	……	23 28·20	+ 0·34		+ 39·72	7 24 8·26
	α Canis Minoris	36·1	49·4	3·0	16·3	29·5	30 2·86	+ 0·55	39·93	+ 39·72	7 30 43·13
	73 Leonis	10·5	24·0	37·5	51·3	4·8	6 37·62	+ 0·49	………	+ 39·88	11 7 17·99
	ι Leonis	15·6	29·1	43·0	56·4	10·0	14 42·82	+ 0·51	………	+ 39·89	11 15 23·22
	Moon 2 Limb	19·8	33·6	47·4	1·1	14·8	35 47·34	+ 0·56	………	+ 39·91	11 36 27·81
	ο Virginis	44·8	58·2	11·5	25·2	38·4	56 11·62	+ 0·52	………	+ 39·92	11 56 52·06
	η Virginis	24·7	38·0	51·4	4·6	17·8	10 51·30	+ 0·59	………	+ 39·93	12 11 31·82
Mar. 4	Sun 1 Limb	51·2	4·7	18·0	31·5	44·8	59 18·04	+ 0·63	………	+ 40·42	22 59 59·09
	Sun 2 Limb	1·6	15·0	28·5	42·0	55·4	1 28·50	+ 0·63	………	+ 40·42	23 2 9·55
	α Ursæ Minoris	29·0	36·5	44·0	53·0	0·0	59 44·74	− 14·07	………	+ 40·51	1 0 11·18
	Microm.	……	42·0	……	48·0	……					
	Venus 1 Limb	6·2	19·5	33·0	46·4	59·9	11 33·00	+ 0·54	………	+ 40·51	1 12 14·05
	α Ceti	34·3	47·3	0·8	14·0	27·2	53 0·72	+ 0·57	+ 40·59	+ 40·59	2 53 41·88
	α Hydræ	24·0	37·5	51·0	4·4	17·8	18 50·94	+ 0·65	40·86	+ 40·87	9 19 32·46
	β Leonis	33·3	47·2	1·1	14·6	28·4	40 0·92	+ 0·48	41·01	+ 40·96	11 40 42·36
	ο Virginis	43·6	57·1	10·7	24·0	37·4	56 10·56	+ 0·52	………	+ 40·97	11 56 52·05
	η Virginis	23·7	37·1	50·3	3·5	16·9	10 50·30	+ 0·59	………	+ 40·98	12 11 31·87
	Vesta	25·7	39·3	53·0	6·4	20·0	14 52·88	+ 0·51	………	+ 40·99	12 15 34·38
Mar. 5	Sun 1 Limb	33·0	46·6	59·9	13·3	26·7	2 59·90	+ 0·63	………	+ 41·40	23 3 41·93
	Sun 2 Limb	43·3	56·8	10·2	23·5	36·9	5 10·14	+ 0·63	………	+ 41·40	23 5 52·17
	α Aurigæ	14·5	33·8	53·0	12·0	31·0	3 52·86	+ 0·18	+ 41·66	+ 41·63	5 4 34·67
	β Orionis	30·1	43·6	57·1	10·4	24·0	5 57·04	+ 0·65	41·64	+ 41·63	5 6 39·32
	β Tauri	43·2	58·2	13·4	28·7	44·0	15 13·50	+ 0·37	41·68	+ 41·64	5 15 55·51
	α Orionis	8·8	22·1	35·4	48·9	2·4	45 35·52	+ 0·54	41·60	+ 41·66	5 46 17·72
	β Leonis	32·5	46·4	0·2	13·7	27·5	40 0·06	+ 0·48	41·88	+ 41·86	11 40 42·40
	γ Ursæ Majoris	44·5	7·6	30·3	53·3	16·3	44 30·47	+ 0·03	………	+ 41·87	11 45 12·37
	Microm.	……	19·1	……	42·2	……					
	Vesta	40·2	53·5	7·0	20·5	34·3	14 7·10	+ 0·51	………	+ 41·88	12 14 49·49
Mar. 7	Sun 1 Limb	55·5	9·0	22·4	35·8	49·2	10 22·38	+ 0·62	………	+ 43·06	23 11 6·06
	Sun 2 Limb	5·5	18·7	32·4	45·8	59·2	12 32·32	+ 0·62	………	+ 43·06	23 13 16·00
	Venus 1 Limb	18·4	32·0	45·7	58·5	12·4	24 45·40	+ 0·53	………	+ 43·14	1 25 29·07
	α Arietis	42·6	57·3	11·7	26·0	40·5	57 11·62	+ 0·42	+ 43·12	+ 43·15	1 57 55·19
	β Tauri	41·6	56·8	12·0	27·3	42·3	15 12·00	+ 0·37	43·15	+ 43·26	5 15 55·63
	α Leporis	17·8	32·0	45·8	0·0	13·7	24 45·86	+ 0·72	………	+ 43·27	5 25 29·85
	α Orionis	6·8	20·3	33·8	47·2	0·4	45 33·70	+ 0·54	43·39	+ 43·28	5 46 17·52
	α Leonis	27·5	41·3	55·0	8·5	22·2	58 54·90	+ 0·50	43·45	+ 43·41	9 59 38·81
Mar. 8	Sun 1 Limb	36·4	50·0	3·4	16·5	30·0	14 3·26	+ 0·62	………	+ 43·82	23 14 47·70
	Sun 2 Limb	46·4	59·7	13·2	26·3	40·0	16 13·12	+ 0·62	………	+ 43·82	23 16 57·56
	α Ursæ Minoris	……	……	……	……	54·0	59 39·25	− 14·07	………	+ 43·88	1 0 9·06
	Microm.	……	36·5	……	……	……					
	α Arietis	42·0	56·5	10·8	25·3	39·6	57 10·84	+ 0·42	+ 43·89	+ 43·91	1 57 55·17
	β Tauri	41·0	56·1	11·2	26·4	41·4	15 11·22	+ 0·37	43·91	+ 44·01	5 15 55·60
	α Orionis	6·1	19·4	32·9	46·4	59·7	45 32·90	+ 0·54	44·17	+ 44·02	5 46 17·46
	α Canis Minoris	31·9	45·3	58·7	12·0	25·3	29 58·64	+ 0·55	44·09	+ 44·06	7 30 43·25
	β Geminorum	2·1	17·3	32·4	47·5	2·7	34 32·40	+ 0·37	44·04	+ 44·06	7 35 16·83
	α Ursæ Majoris	54·6	23·4	51·7	21·0	49·8	52 52·06	− 0·18	………	+ 44·12	10 53 36·00
	Microm.	……	37·6	……	6·3	……					
	γ Ursæ Majoris	42·6	5·6	28·8	51·8	14·3	44 28·66	+ 0·03	………	+ 44·14	11 45 12·83
	Microm.	……	17·4	……	40·1	……					

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Mar. 8	Vesta	16·2	29·6	43·2	57·0	10·4	11 43·28	+ 0·51	....	+44·15	12 12 27·94
Mar. 9	Sun 1 Limb	17·0	30·3	43·7	57·0	10·5	17 43·70	+ 0·74	....	+44·35	23 18 28·79
	Sun 2 Limb	26·7	......	......	......	......	19 53·46	+ 0·74	....	+44·35	23 20 38·55
	α Ursæ Minoris	25·0	36·5	43·0	51·5	57·0	59 43·17	−17·25	....	+44·39	1 0 10·31
	Microm.	......	41·0	......	47·5	......					
	Venus 1 Limb	8·9	22·3	36·0	49·8	2·8	33 35·96	+ 0·61	....	+44·40	1 34 20·97
	α Aurigæ	11·7	30·8	50·0	8·8	28·1	3 49·88	+ 0·20	+44·52	+44·46	5 4 34·54
	β Orionis	27·3	40·5	54·2	7·4	21·0	5 54·08	+ 0·77	44·41	+44·46	5 6 39·31
	β Tauri	40·2	55·4	10·5	25·6	40·7	15 10·48	+ 0·44	44·56	+44·47	5 15 55·39
	α Leporis	16·4	30·5	44·4	58·5	12·5	24 44·46	+ 0·86	....	+44·47	5 25 29·79
	ι Herculis S.P.	26·0	45·1	4·2	23·4	42·6	34 4·26	+ 1·22	....	+44·47	5 34 49·95
	α Orionis	5·6	18·8	32·4	45·7	59·2	45 32·34	+ 0·64	44·61	+44·48	5 46 17·46
	δ Ursæ Minor. S.P.	47·0	29·0	13·0	56·0	40·0	24 12·90	+ 8·92	....	+44·49	6 25 6·31
	Microm.	......	21·5	......	......	......					
	Jupiter 1 Limb	......	0·0	......	29·1	......	25 14·55	+ 0·49	....	+44·49	6 25 59·53
	Jupiter 2 Limb	48·5	......	17·5	......	46·6	25 17·53	+ 0·49	....	+44·49	6 26 2·51
	Juno	57·3	10·5	24·4	37·5	51·5	30 24·24	+ 0·61	....	+44·49	6 31 9·34
	α Canis Majoris	42·3	56·2	10·2	24·1	38·1	37 10·18	+ 0·84	44·35	+44·50	6 37 55·52
	α Geminor. preceding	50·6	......	22·5	......	54·2	23 22·43	+ 0·40	44·43	+44·51	7 24 7·34
	α Geminor. following	......	7·4	......	39·3	......	23 23·35	+ 0·40		+44·51	7 24 8·26
	γ Ursæ Majoris	41·8	4·7	27·7	50·8	13·8	44 27·79	+ 0·02	....	+44·61	11 45 12·42
	Microm.	......	16·4	......	39·3	......					
	Vesta	26·3	39·6	53·2	7·0	20·4	10 53·30	+ 0·60	....	+44·62	12 11 38·52
Mar. 10	Sun 1 Limb	57·4	10·6	24·0	37·4	50·8	21 24·04	+ 0·73	....	+44·86	23 22 9·63
	Sun 2 Limb	6·5	20·0	33·5	47·0	0·4	23 33·48	+ 0·73	....	+44·86	23 24 19·07
	γ Draconis	19·5	40·7	2·1	23·5	44·9	52 2·13	+ 0·09	....	+45·27	17 52 47·49
	Microm.	......	51·4	......	12·8	......					
	δ Ursæ Minoris	2·5	47·0	29·5	13·0	56·5	24 29·77	− 7·49	....	+45·28	18 25 7·56
	Microm.	......	38·5	......	21·0	......					
	α Lyræ	2·8	19·8	36·7	54·0	10·8	30 36·82	+ 0·31	+45·36	+45·28	18 31 22·41
Mar. 11	Sun 1 Limb	37·5	50·7	4·2	17·5	30·8	25 4·14	+ 0·73	....	+45·39	23 25 50·26
	Sun 2 Limb	46·8	0·2	13·4	27·0	40·2	27 13·52	+ 0·73	....	+45·39	23 27 59·64
	α Ursæ Minoris	......	......	......	50·5	57·0	59 41·95	−17·25	....	+45·42	1 0 10·12
	Venus 1 Limb	1·2	14·8	......	42·0	55·5	42 28·38	+ 0·61	....	+45·44	1 43 14·43
	α Aurigæ	10·6	29·7	48·7	8·0	27·1	3 48·84	+ 0·20	45·51	+45·51	5 4 34·55
	Microm.	......	39·4	......	58·4	......					
	β Orionis	26·1	39·4	53·2	6·4	19·8	5 52·98	+ 0·77	45·47	+45·51	5 6 39·26
	β Tauri	39·3	54·4	9·4	24·7	39·7	15 9·50	+ 0·44	45·50	+45·52	5 15 55·46
	α Orionis	4·6	18·0	31·4	44·8	58·2	45 31·40	+ 0·64	45·52	+45·53	5 46 17·57
Mar. 12	α Leonis	25·0	38·4	52·2	5·7	19·3	58 52·12	+ 0·59	+46·14	+46·14	....
Mar. 14	Sun 1 Limb	35·5	49·0	2·3	15·5	28·8	36 2·22	+ 0·72	....	+46·99	23 36 49·93
	Sun 2 Limb	44·6	58·3	11·6	25·0	38·3	38 11·56	+ 0·72	....	+46·99	23 38 59·27
	α Ursæ Minoris	25·5	32·5	39·0	46·5	......	59 39·60	−17·25	....	+47·02	1 0 9·37
	Microm.	......	36·5	......	42·0	......					
	Venus 1 Limb	23·5	37·2	50·9	4·7	18·2	55 50·90	+ 0·60	....	+47·04	1 56 38·54
	α Leporis	14·0	27·8	41·8	55·8	9·8	24 41·84	+ 0·86	....	+47·12	5 25 29·82
	α Orionis	3·0	16·4	29·6	43·2	56·5	45 29·74	+ 0·64	+47·13	+47·13	5 46 17·51
	δ Ursæ Minor. S.P.	46·0	28·0	13·0	55·0	39·0	24 12·23	+ 8·92	....	+47·14	6 25 8·29
	Microm.	......	21·5	......	......	......					
	Jupiter 1 Limb	......	42·2	......	11·5	......	25 56·85	+ 0·49	....	+47·14	6 26 44·48
	Jupiter 2 Limb	30·6	......	59·8	......	28·5	25 59·63	+ 0·49	....	+47·14	6 26 47·26
	Juno	21·2	34·8	48·4	2·0	15·6	34 48·40	+ 0·60	....	+47·14	6 35 36·14
	α Canis Majoris	39·3	53·2	7·2	21·2	35·3	37 7·24	+ 0·84	47·20	+47·15	6 37 55·23

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Mar. 14	α Geminor. preceding	48·4	……	20·0	……	51·3	23 19·90	+ 0·40	+ 46·94	+47·16	7 24 7·46
	α Geminor. following	……	4·8	……	36·6	……	23 20·70	+ 0·40		+47·16	7 24 8·26
	α Canis Minoris	28·4	41·8	55·3	8·5	22·0	29 55·20	+ 0·65	47·35	+47·16	7 30 43·01
	β Geminorum	58·8	14·0	29·1	44·3	59·3	34 29·10	+ 0·44	47·18	+47·17	7 35 16·71
	α Ursæ Majoris	51·1	20·0	48·5	17·7	46·6	52 48·80	− 0·24	………	+47·22	10 53 35·78
	Microm.	……	34·4	……	3·3	……					
	β Leonis	27·2	40·7	54·8	……	……	39 54·71	+ 0·57	47·22	+47·23	11 40 42·51
	Vesta	4·5	18·3	31·8	45·4	58·5	6 31·70	+ 0·60	………	+47·23	12 7 19·53
Mar. 15	Sun 1 Limb	14·7	28·0	41·4	54·7	8·1	39 41·38	+ 0·72	………	+47·40	23 40 29·50
	Sun 2 Limb	23·9	37·3	50·5	3·7	17·2	41 50·52	+ 0·72	………	+47·40	23 42 38·64
	α Ursæ Minoris	22·5	30·0	38·0	……	53·5	59 38·32	−17·24	………	+47·42	1 0 8·50
	Microm.	……	34·5	……	42·5	……					
	α Orionis	2·5	16·0	29·4	42·8	56·2	45 29·38	+ 0·64	+47·47	+47·49	5 46 17·51
	δ Ursæ Minor. S.P.	45·5	29·0	12·0	55·0	39·5	24 12·15	+ 8·92	………	+47·50	6 25 8·57
	Microm.	……	21·0	……	……	……					
	Jupiter 1 Limb	38·8	……	7·8	……	36·8	26 7·80	+ 0·49	………	+47·51	6 26 55·80
	Jupiter 2 Limb	……	56·4	……	25·3	……	26 10·85	+ 0·49	………	+47·51	6 26 58·85
	α Canis Majoris	39·1	53·2	7·0	21·0	34·8	37 7·02	+ 0·84	47·40	+47·51	6 37 55·37
	α Geminor. preceding	48·1	……	19·7	……	51·3	23 19·70	+ 0·40	47·34	+47·52	7 24 7·62
	α Geminor. following	……	4·3	……	35·8	……	23 20·05	+ 0·40		+47·52	7 24 7·97
	α Canis Minoris	28·1	41·5	55·0	8·3	21·5	29 54·88	+ 0·65	47·65	+47·52	7 30 43·05
	β Geminorum	58·4	13·5	28·7	44·0	59·0	34 28·72	+ 0·44	47·55	+47·52	7 35 16·68
	α Leonis	23·2	37·0	50·6	4·2	17·8	58 50·56	+ 0·59	47·68	+47·56	9 59 38·71
	α Ursæ Majoris	50·2	19·2	48·4	17·2	45·8	52 48·20	− 0·24	………	+47·58	10 53 35·54
	Microm.	……	33·8	……	2·8	……					
	Vesta	10·7	24·2	37·6	51·3	4·8	5 37·72	+ 0·59	………	+47·60	12 6 25·91
Mar. 16	Sun 1 Limb	53·5	6·8	20·2	33·5	46·8	43 20·16	+ 0·71	………	+47·81	23 44 8·68
	Sun 2 Limb	2·6	16·0	29·2	42·6	55·9	45 29·26	+ 0·71	………	+47·81	23 46 17·78
	α Aurigæ	8·2	27·2	46·3	5·4	24·5	3 46·31	+ 0·20	+47·92	+47·91	5 4 34·42
	Microm.	……	36·8	……	55·8	……					
	β Orionis	23·8	37·2	50·6	4·0	17·3	5 50·58	+ 0·77	47·79	+47·91	5 6 39·26
	β Tauri	36·8	51·8	7·0	22·1	37·3	15 7·00	+ 0·44	47·90	+47·91	5 15 55·35
	α Leporis	13·0	27·0	40·8	55·0	9·0	24 40·96	+ 0·86	………	+47·91	5 25 29·73
	α Orionis	2·0	15·4	28·8	42·2	55·7	45 28·82	+ 0·64	48·02	+47·92	5 46 17·38
	δ Ursæ Minor. S.P.	46·0	28·0	12·0	55·0	39·0	24 11·73	+ 8·92	………	+47·94	6 25 8·59
	Microm.	……	19·5	……	……	……					
	Jupiter 1 Limb	……	4·9	……	34·0	……	26 19·45	+ 0·49	………	+47.94	6 27 7·88
	Jupiter 2 Limb	53·5	……	22·5	……	51·4	26 22·47	+ 0·49	………	+47·94	6 27 10·90
	Juno	17·4	31·0	44·6	58·2	11·8	36 44·60	+ 0·60	………	+47·94	6 37 33·14
Mar. 17	α Ursæ Minoris	……	26·0	35·0	……	……	59 34·08	−17·24	………	+48·36	1 0 5·20
	Microm.	……	30·0	……	37·5	……					
	β Tauri	36·3	51·4	6·8	21·5	36·5	15 6·50	+ 0·44	+48·39	+48·46	5 15 55·40
	δ Ursæ Minor. S.P.	45·0	27·0	12·5	55·0	38·5	24 11·48	+ 8·92	………	+48·49	6 25 8·89
	Microm.	……	20·0	……	……	……					
	Jupiter 1 Limb	3·0	……	32·0	……	1·1	26 32·03	+ 0·49	………	+48·49	6 27 21·01
	Jupiter 2 Limb	……	20·4	……	49·4	……	26 34·90	+ 0·49	………	+48·49	6 27 23·88
	α Geminor. preceding	46·9	……	18·6	……	50·0	23 18·50	+ 0·40	48·44	+48·51	7 24 7·41
	α Geminor. following	……	3·3	……	34·7	……	23 19·00	+ 0·40		+48·51	7 24 7·91
	α Canis Minoris	27·0	40·3	53·8	7·2	20·5	29 53·76	+ 0·65	48·75	+48·51	7 30 42·92
	α Leonis	22·3	35·8	49·8	3·4	17·0	58 49·66	+ 0·59	48·58	+48·57	9 59 38·82
	β Leonis	25·8	39·8	53·5	7·3	20·8	39 53·44	+ 0·57	48·51	+48·61	11 40 42·62
	γ Ursæ Majoris	38·3	1·2	24·0	47·0	10·0	44 24·17	+ 0·02	………	+48·61	11 45 12·80
	Microm.	……	12·7	……	36·0	……					
Mar. 18	α Canis Majoris	37·5	51·5	5·5	19·4	33·5	37 5·48	+ 0·84	+48·89	+49·07	6 37 55·39

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Mar. 18	α Canis Minoris·······	······	······	53·3	6·5	19·8	29 53·17	+ 0·65	+49·32	+49·09	7 30 42·91
	α Hydræ···············	15·6	29·2	42·5	56·0	9·4	18 42·54	+ 0·77	49·04	+49·14	9 19 32·45
	α Leonis···············	21·8	35·4	49·2	2·6	16·2	58 49·04	+ 0·59	49·20	+49·16	9 59 38·79
	α Ursæ Majoris········	49·0	18·1	46·8	16·0	44·8	52 46·94	− 0·24	··········	+49·19	10 53 35·89
Mar. 19	Sun 1 Limb············	48·2	1·5	14·9	28·2	41·5	54 14·86	+ 0·70	··········	+49·59	23 55 5·15
	Sun 2 Limb············	57·3	10·6	24·0	37·4	50·7	56 24·00	+ 0·70	··········	+49·59	23 57 14·29
	α Cassiopeæ············	35·0	58·7	22·1	46·0	9·4	30 22·24	− 0·01	··········	+49·61	0 31 11·84
	············*Microm.* ····	······	10·5	······	34·0	······					
	α Ursæ Minoris ·······	17·5	27·5	34·5	42·0	49·5	59 34·74	−17·24	··········	+49·62	1 0 7·12
	············*Microm.* ····	······	32·5	······	39·0	······					
	Venus 1 Limb·········	52·4	6·3	20·1	33·6	47·7	18 20·02	+ 0·58	··········	+49·66	2 19 10·26
	α Geminor. preceding	45·8	······	17·1	······	48·7	23 17·20	+ 0·40	+49·60	+49·81	7 24 7·41
	α Geminor. following	······	2·3	······	33·5	······	23 17·90	+ 0·40		+49·81	7 24 8·11
	α Canis Minoris·······	25·4	39·1	52·3	5·8	19·3	29 52·38	+ ·0·65	50·10	+49·82	7 30 42·85
	β Geminorum ·········	56·2	11·2	26·3	41·4	56·5	34 26·32	+ 0·44	49·88	+49·82	7 35 16·58
	λ Ursæ Minor. S.P.···	38·0	14·5	0·0	42·0	25·5	22 59·86	+ 24·30	· ········	+49·84	8 24 14·00
	············*Microm.* ····	······	41·0	······	19·0	······					
	β Leonis················	24·7	38·4	52·2	5·9	19·5	39 52·14	+ 0·57	49·82	+49·94	11 40 42·65
	γ Ursæ Majoris ·······	36·7	59·9	23·0	45·6	8·7	44 22·86	+ 0·02	··········	+49·95	11 45 12·83
	············*Microm.* ····	······	11·4	······	34·7	······					
	Vesta····················	29·3	42·8	56·6	10·3	23·8	1 56·56	+ 0·59	··········	+49·96	12 2 47·11
Mar. 21	α Canis Minoris·······	24·4	37·8	51·2	4·5	17·8	29 51·14	+ 0·65	+51·31	+51·27	7 30 43·06
	β Geminorum··········	54·6	9·8	25·0	40·1	55·2	34 24·94	+ 0·44	51·23	+51·27	7 35 16·65
Mar. 22	Sun 1 Limb············	41·0	54·7	7·8	21·0	34·4	5 7·78	+ 0·69	···· ·····	+51·72	0 6 0·19
	Sun 2 Limb············	50·1	3·4	16·5	30·2	43·4	7 16·72	+ 0·69	··········	+51·72	0 8 9·13
	α Ursæ Minoris ·······	14·5	21·5	29·5	37·5	41·5	59 29·31	−17·24	··········	+51·75	1 0 3·82
	············*Microm.* ····	······	26·0	······	34·0	······					
	Venus 1 Limb·········	28·4	42·5	56·4	9·9	24·1	31 56·26	+ 0·56	··········	+51·79	2 32 48·61
	Moon 1 Limb··········	51·8	6·6	21·1	35·8	50·3	1 21·12	+ 0·53	··········	+51·83	4 2 13·48
	α Tauri ················	10·2	24·1	38·0	51·6	5·5	25 37·88	+ 0·56	+51·79	+51·84	4 26 30·28
	α Aurigæ···············	4·0	22·8	42·1	1·3	20·2	3 42·06	+ 0·20	52·03	+51·86	5 4 34·12
	············*Microm.* ····	······	32·5	······	51·5	······					
	β Orionis···············	19·4	33·0	46·5	0·0	13·4	5 46·46	+ 0·77	51·80	+51·86	5 6 39·09
	β Tauri·················	32·6	47·7	2·8	18·1	33·2	15 2·88	+ 0·44	51·91	+51·86	5 15 55·18
	α Orionis···············	58·3	11·5	25·0	38·3	51·7	45 24·96	+ 0·64	51·77	+51·88	5 46 17·48
	δ Ursæ Minor. S.P.···	45·5	28·0	11·5	······	38·0	24 11·55	+ 8·92	··········	+51·90	6 25 12·37
	············*Microm.* ····	······	21·0	······	2·5	······					
	Jupiter 1 Limb········	······	31·0	······	59·9	······	27 45·45	+ 0·49	··········	+51·90	6 28 37·84
	Jupiter 2 Limb········	19·5	······	48·5	······	17·4	27 48·47	+ 0·49	··········	+51·90	6 28 40·86
	Juno·····················	31·8	45·4	58·8	12·3	25·5	42 58·76	+ 0·60	··········	+51·91	6 43 51·27
	α Geminor. preceding	43·3	······	15·1	······	46·2	23 14·87	+ 0·40	51·94	+51·93	7 24 7·20
	α Geminor. following	······	59·7	······	31·2	······	23 15·45	+ 0·40		+51·93	7 24 7·78
Mar. 23	α Tauri ················	9·4	23·3	37·2	51·2	4·9	25 37·20	+ 0·56	+52·45	+52·59	4 26 30·35
	Moon 1 Limb··········	······	······	20·6	······	50·7	53 20·68	+ 0·50	··········	+52·60	4 54 13·78
	β Tauri·················	······	47·0	2·2	17·4	32·5	15 2·21	+ 0·44	52·57	+52·62	5 15 55·27
	ζ Tauri·················	29·0	43·1	57·3	11·3	25·7	26 57·28	+ 0·52	··········	+52·62	5 27 50·42
	α Orionis ··············	57·3	10·8	24·3	37·5	50·8	45 24·14	+ 0·64	52·58	+52·63	5 46 17·41
	δ Ursæ Minor. S.P.···	45·5	28·0	11·5	······	38·0	24 11·55	+ 8·92	··········	+52·65	6 25 13·12
	············*Microm.* ····	······	20·5	······	3·0	······					
	Jupiter 1 Limb········	33·5	······	2·5	······	31·4	28 2·47	+ 0·49	··········	+52·65	6 28 55·61
	Jupiter 2 Limb········	······	51·0	······	19·9	······	28 5·45	+ 0·49	··········	+52·65	6 28 58·59
	α Canis Majoris········	33·9	47·8	1·8	15·6	29·5	37 1·72	+ 0·84	52·55	+52·65	6 37 55·21
	α Geminor. preceding	42·6	······	14·1	······	45·6	23 14·10	+ 0·40	52·68	+52·67	7 24 7·17
	α Geminor. following	······	59·0	······	30·4	······	23 14·70	+ 0·40		+52·67	7 24 7·77

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s	m. s.	s.	s.	s.	h. m. s.
Mar. 23	α Canis Minoris	22·9	36·3	49·5	2·9	16·3	29 49·58	+ 0·65	+ 52·84	+ 52·67	7 30 42·90
	β Geminorum	53·1	8·1	23·2	38·3	53·4	34 23·22	+ 0·44	52·92	+ 52·67	7 35 16·33
	α Ursæ Majoris	45·2	13·6	42·8	11·6	40·3	52 42·74	− 0·24	....	+ 52·72	10 53 35·22
	Microm.	......	28·2	......	57·5	......					
	Vesta	45·2	58·7	12·5	26·3	39·9	58 12·52	+ 0·59	....	+ 52·74	11 59 5·85
	α Ursæ Major. S.P.	43·5	12·3	41·3	10·3	39·3	52 41·31	+ 1·66	....	+ 52·91	22 53 35·88
	Microm.	......	26·7	......	55·8	......					
Mar. 24	α Ursæ Minoris	......	......	27·5	36·0	42·0	59 27·60	− 17·24	....	+ 52·94	1 0 3·30
	Microm.	......	24·5	......	30·5	......					
	Venus 1 Limb	36·4	50·4	4·5	18·3	32·3	41 4·38	+ 0·55	....	+ 52·97	2 41 57·90
	α Aurigæ	2·9	22·0	40·8	0·1	19·3	3 40·97	+ 0·20	+ 53·07	+ 53·01	5 4 34·18
	Microm.	......	31·3	......	50·4	......					
	β Orionis	18·3	31·7	45·3	58·8	12·2	5 45·26	+ 0·77	52·97	+ 53·01	5 6 39·04
	δ Ursæ Minor. S.P.	45·5	28·0	11·5	......	38·0	24 11·47	+ 8·92	....	+ 53·03	6 25 13·42
	Microm.	......	20·5	......	2·5	......					
	Jupiter 1 Limb	54·6	......	23·5	......	52·5	28 20·55	+ 0·49	....	+ 53·03	6 29 14·07
	Jupiter 2 Limb	......	6·0	......	35·1	......	28 23·53	+ 0·49	....	+ 53·03	6 29 17·05
	α Canis Majoris	33·7	47·5	1·5	15·5	29·3	37 1·50	+ 0·84	52·76	+ 53·03	6 37 55·37
	α Canis Minoris	22·4	35·7	49·3	2·5	15·8	29 49·14	+ 0·65	53·26	+ 53·05	7 30 42·84
	β Geminorum	52·5	8·2	23·0	38·2	53·2	34 23·02	+ 0·44	53·10	+ 53·05	7 35 16·51
Mar. 25	Sun 2 Limb	42·6	55·9	9·3	22·5	35·8	18 9·22	+ 0·68	....	+ 53·34	0 19 3·24
	α Orionis	56·8	10·0	23·4	36·6	50·3	45 23·42	+ 0·64	+ 53·27	+ 53·43	5 46 17·49
	η Geminorum	35·6	50·1	4·5	18·9	33·3	4 4·48	+ 0·50	....	+ 53·43	6 4 58·41
	μ Geminorum	39·3	53·6	8·0	22·5	37·2	12 8·12	+ 0·50	....	+ 53·44	6 13 2·06
	δ Ursæ Minor. S.P.	45·5	27·0	10·5	......	38·0	24 10·80	+ 8·92	....	+ 53·44	6 25 13·16
	Microm.	......	19·0	......	2·0	......					
	Jupiter 1 Limb	10·4	......	39·4	......	8·3	28 39·37	+ 0·49	....	+ 53·44	6 29 33·30
	Jupiter 2 Limb	......	27·8	......	56·8	......	28 42·30	+ 0·49	....	+ 53·44	6 29 36·23
	α Canis Majoris	......	47·2	1·0	14·8	28·7	37 0·99	+ 0·84	53·25	+ 53·44	6 37 55·27
	Moon 1 Limb	38·7	54·0	9·3	24·5	39·8	42 9·26	+ 0·48	....	+ 53·44	6 43 3·18
	δ Geminorum	56·6	11·2	25·6	40·0	54·3	9 25·54	+ 0·50	....	+ 53·45	7 10 19·49
	ι Geminorum	8·2	23·0	38·0	53·0	8·3	14 38·10	+ 0·44	....	+ 53·45	7 15 31·99
	α Geminor. preceding	41·7	......	13·4	......	45·0	23 13·37	+ 0·40	53·36	+ 53·46	7 24 7·23
	α Geminor. following	......	58·2	......	29·8	......	23 14·00	+ 0·40		+ 53·46	7 24 7·86
	α Canis Minoris	21·8	35·3	48·8	2·2	15·4	29 48·70	+ 0·65	53·69	+ 53·46	7 30 42·81
	β Geminorum	52·3	7.4	22·4	37·4	52·6	34 22·42	+ 0·44	53·68	+ 53·46	7 35 16·32
	Vesta	54·8	8·4	22·0	35·6	49·3	56 22·02	+ 0·58	....	+ 53·54	11 57 16·14
	α Ursæ Major. S.P.	42·3	11.4	40·3	9·3	38·3	52 40·31	+ 1·66	....	+ 53·71	22 53 35·68
	Microm.	......	26·0	......	54·6	......					
Mar. 26	Sun 1 Limb	11·4	24·7	37·8	51·3	4·8	19 38·00	+ 0·68	....	+ 53·74	0 20 32·42
	Sun 2 Limb	19·7	33·0	46·6	59·8	13·3	21 46·48	+ 0·68	....	+ 53·74	0 22 40·90
	α Aurigæ	2·5	21·4	40·4	59·4	18·3	3 40·40	+ 0·20	+ 53·60	+ 53·81	5 4 34·41
	Microm.	......	31·0	......	49·8	......					
	δ Ursæ Minor. S.P.	......	......	10·0	......	36·0	24 9·65	+ 8·92	....	+ 53·84	6 25 12·41
	Microm.	......	17·5	......	1·5	......					
	Jupiter 1 Limb	......	44·4	......	14·3	......	28 59·35	+ 0·49	....	+ 53·84	6 29 53·68
	Jupiter 2 Limb	32·7	......	2·0	......	30·8	29 1·83	+ 0·49	....	+ 53·84	6 29 56·16
	α Canis Majoris	33·0	46·7	0·6	14·4	28·3	37 0·60	+ 0·84	53·62	+ 53·84	6 37 55·28
	δ Geminorum	56·4	10·7	25·2	39·4	53·8	9 25·10	+ 0·50	....	+ 53·85	7 10 19·45
	ι Geminorum	7·6	22·7	37·5	52·8	7·8	14 37·68	+ 0·44	....	+ 53·85	7 15 31·97
	α Geminor. preceding	41·7	......	13·1	......	44·3	23 13·03	+ 0·40	53·83	+ 53·85	7 24 7·28
	α Geminor. following	......	57·7	......	29·0	......	23 13·35	+ 0·40		+ 53·85	7 24 7·60
	α Canis Minoris	21·5	34·8	48·3	1·7	15·1	29 48·28	+ 0·65	54·09	+ 53·85	7 30 42·78
	β Geminorum	51·8	7·0	22·0	37·1	52·3	34 22·04	+ 0·44	54·05	+ 53·86	7 35 16·34
	Moon 1 Limb	4·6	19·6	34·9	50·1	5·2	37 34·88	+ 0·49	....	+ 53·86	7 38 29·23

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Mar. 26	6 Cancri	1·9	16·9	32·2	47·2	2·2	52 32·08	+ 0·44	………	+53·86	7 53 26·38
	λ Cancri	23·4	37·8	52·4	7·0	21·5	9 52·42	+ 0·48	………	+53·87	8 10 46·77
	α Leonis	17·0	30·7	44·3	57·8	11·5	58 44·26	+ 0·59	+ 53·92	+53·92	9 59 38·77
	Vesta	0·1	13·7	27·3	41·0	54·6	55 27·34	+ 0·58	………	+53·98	11 56 21·90
Mar. 27	6 Cancri	……	……	31·2	46·2	1·4	52 31·17	+ 0·44	………	+54·78	7 53 26·39 †
	λ Cancri	22·3	37·1	51·6	6·3	……	9 51·63	+ 0·48	………	+54·79	8 10 46·90 †
	Moon 1 Limb	1·5	16·2	31·0	46·0	1·0	32 31·14	+ 0·51	………	+54·80	8 33 26·45 †
	ξ Cancri	31·7	46·1	0·5	15·0	29·4	59 0·54	+ 0·50	………	+54·81	8 59 55·85 †
	83 Cancri	26·4	40·4	54·5	8·6	22·5	8 54·48	+ 0·54	………	+54·82	9 9 49·84 †
	α Hydræ	10·0	23·2	36·8	50·0	3·5	18 36·70	+ 0·77	+ 54·79	+54·82	9 19 32·29 †
	α Leonis	16·1	29·7	43·3	57·0	10·4	58 43·30	+ 0·59	54·87	+54·84	9 59 38·73 †
Mar. 29	Sun 1 Limb	3·1	16·3	29·6	43·0	56·3	30 29·66	+ 0·67	………	+55·68	0 31 26·01
	Sun 2 Limb	11·7	25·0	38·5	51·7	5·2	32 38·42	+ 0·67	………	+55·68	0 33 34·77
	α Ursæ Minoris	……	……	……	34·0	40·5	59 26·25	− 17·23	………	+55·70	1 0 4·72
	α Arietis	30·0	44·3	59·0	13·3	27·7	56 58·86	+ 0·50	+ 55·67	+55·72	1 57 55·08
	Venus 1 Limb	37·8	52·2	6·3	19·8	34·3	4 6·08	+ 0·53	………	+55·75	3 5 2·36
	α Aurigæ	59·8	18·7	38·1	57·2	16·2	3 38·01	+ 0·20	55·92	+55·81	5 4 34·02
	…… *Microm.*	……	28·5	……	47·6	……					
	β Orionis	15·5	29·1	42·4	55·8	9·3	5 42·42	+ 0·77	55·73	+55·81	5 6 39·00
	β Tauri	28·6	43·7	58·8	13·8	28·9	14 58·76	+ 0·44	55·91	+55·81	5 15 55·01
	δ Ursæ Minor. S.P.	40·0	24·5	8·0	52·0	32·5	24 7·77	+ 8·92	………	+55·85	6 25 12·54
	…… *Microm.*	……	17·0	……	0·0	……					
	Jupiter 1 Limb	32·2	……	1·2	……	30·2	30 1·20	+ 0·49	………	+55·86	6 30 57·55
	Jupiter 2 Limb	……	49·3	……	18·2	……	30 3·75	+ 0·49	………	+55·86	6 31 0·10
	α Canis Majoris	30·5	44·5	58·4	12·4	26·2	36 58·40	+ 0·84	55·77	+55·86	6 37 55·10
	η Leonis	59·3	13·2	27·2	41·2	55·1	57 27·20	+ 0·55	………	+55·97	9 58 23·72
	γ Leonis	31·2	45·3	59·4	13·6	27·9	9 59·48	+ 0·52	………	+55·98	10 10 55·98
	Moon 1 Limb	20·6	34·8	49·0	3·2	17·3	18 48·98	+ 0·59	………	+55·98	10 19 45·55
	52 Leonis	20·2	34·0	48·2	1·7	15·5	36 47·92	+ 0·57	………	+55·99	10 37 44·48
	χ Leonis	10·4	23·9	37·3	50·5	4·0	55 37·22	+ 0·63	………	+56·00	10 56 33·85
	Vesta	17·6	31·3	44·9	58·3	12·1	53 44·84	+ 0·58	………	+56·04	11 54 41·46
Mar. 30	52 Leonis	20·0	33·6	47·3	1·2	15·1	36 47·44	+ 0·57	………	+56·79	10 37 44·80
	χ Leonis	……	23·4	36·8	50·3	3·4	55 36·76	+ 0·63	………	+56·81	10 56 34·20
	(*a*) Moon 1 Limb	……	59·6	13·5	27·3	41·2	10 13·48	+ 0·64	………	+56·81	11 11 10·93
	ν Virginis	2·5	15·8	29·3	42·7	56·2	36 29·30	+ 0·64	………	+56·83	11 37 26·77
	β Leonis	17·5	31·3	45·2	59·1	12·7	39 45·16	+ 0·57	+ 56·83	+56·83	……………
	7 Virginis	10·0	23·3	36·3	49·8	3·2	50 36·52	+ 0·66	………	+56·84	11 51 34·02
	Vesta	……	39·0	52·3	6·1	19·7	51 52·46	+ 0·58	………	+56·84	11 52 49·88
Mar. 31	Sun 1 Limb	……	……	……	……	10·9	37 44·18	+ 0·66	………	+57·16	0 38 42·00
	Sun 2 Limb	26·3	39·8	53·2	6·6	19·8	39 53·14	+ 0·66	………	+57·16	0 40 50·96
	α Aurigæ	58·5	17·7	36·6	55·7	14·7	3 36·63	+ 0·20	+ 57·26	+57·27	5 4 34·10
	…… *Microm.*	……	27·0	……	46·2	……					
	β Orionis	14·2	27·6	41·0	54·4	7·9	5 41·02	+ 0·77	57·10	+57·27	5 6 39·06
	β Tauri	27·3	42·3	57·4	12·5	27·6	14 57·42	+ 0·44	57·22	+57·28	5 15 55·14
	α Canis Minoris	18·3	31·5	44·8	58·2	11·4	29 44·84	+ 0·65	57·45	+57·34	7 30 42·83
	β Geminorum	48·4	3·4	18·5	33·6	48·8	34 18·54	+ 0·44	57·46	+57·35	7 35 16·33
April 1	Sun 1 Limb	……	8·4	21·6	35·0	48·3	41 21·64	+ 0·66	………	+57·86	0 42 20·16
	Sun 2 Limb	……	17·4	30·5	……	……	43 30·64	+ 0·66	………	+57·86	0 44 29·16
	α Geminor. preceding	37·5	……	9·0	……	40·3	23 8·93	+ 0·40	+ 57·80	+58·07	7 24 7·40
	α Geminor. following	……	53·5	……	25·1	……	23 9·30	+ 0·40		+58·07	7 24 7·77
	β Geminorum	47·6	2·8	18·1	33·2	48·2	34 17·98	+ 0·44	58·00	+58·07	7 35 16·49
	α Leonis	12·6	26·1	39·8	53·5	6·9	58 39·78	+ 0·59	58·35	+58·14	9 59 38·51

(*a*) Wire V. originally written 40^{s}·2.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
April 1	α Ursæ Majoris	39·4	8·3	37·3	6·2	34·9	52 37·24	– 0·24	....	+ 58·16	10 53 35·16
	............*Microm.*	......	22·8	......	51·8	......					
	β Leonis	16·2	29·9	43·6	57·4	11·2	39 43·66	+ 0·57	+ 58·33	+ 58·18	11 40 42·41
	γ Ursæ Majoris	28·3	51·5	14·4	37·3	0·3	44 14·37	+ 0·02	....	+ 58·18	11 45 12·57
	............*Microm.*	......	3·0	......	25·8	......					
	Vesta	......	......	9·0	22·4	36·2	50 8·83	+ 0·58	....	+ 58·18	11 51 7·59
	γ Virginis	56·7	10·2	23·5	36·7	49·9	32 23·40	+ 0·70	....	+ 58·20	12 33 22·30
	α Ursæ Minor. S.P.	......	38·0	48·0	55·0	......	58 47·50	+ 18·65	....	+ 58·21	13 0 4·36
	............*Microm.*	......	......	......	51·5	......					
April 2	Jupiter 1 Limb	5·0	......	34·2	......	3·2	31 34·13	+ 0·36	....	+ 58·60	6 32 33·09
	Jupiter 2 Limb	......	22·2	......	51·3	......	31 36·75	+ 0·36	....	+ 58·60	6 32 35·71
	α Canis Majoris	28·0	42·0	55·9	9·9	23·7	36 55·90	+ 0·64	+ 58·39	+ 58·61	6 37 55·15
	α Geminor. preceding	......	52·5	......	24·1	......	23 8·30	+ 0·28	58·53	+ 58·62	7 24 7·20
	α Geminor. following	37·3	......	8·6	......	40·1	23 8·67	+ 0·28		+ 58·62	7 24 7·57
	α Canis Minoris	16·9	30·4	43·8	57·2	10·4	29 43·74	+ 0·49	58·68	+ 58·63	7 30 42·86
	β Geminorum	47·1	2·3	17·5	32·4	47·6	34 17·38	+ 0·32	58·70	+ 58·63	7 35 16·33
	Vesta	51·1	5·0	18·8	......	......	49 18·68	+ 0·43	....	+ 58·74	11 50 17·85
	α Ursæ Minor. S.P.	28·0	36·5	46·0	53·0	......	58 45·27	+ 15·57	....	+ 58·78	12 59 59·62
	............*Microm.*	......	43·0	......	49·5	......					
	α Virginis	8·5	22·0	35·5	48·8	2·4	15 35·44	+ 0·60	58·82	+ 58·78	13 16 34·82
	82 Virginis	35·5	48·9	2·4	15·9	29·2	32 2·38	+ 0·58	....	+ 58·79	13 33 1·75
	Moon 2 Limb	35·0	49·0	3·2	17·0	30·3	48 2·90	+ 0·62	....	+ 58·80	13 49 2·32
	α Bootis	44·6	58·8	13·0	27·3	41·2	7 12·98	+ 0·39	58·91	+ 58·81	14 8 12·18
April 3	Mercury 2 Limb	41·8	55·3	8·7	22·0	35·5	31 8·66	+ 0·57	....	+ 59·79	23 32 9·02
April 4	Sun 1 Limb	48·0	1·5	15·1	28·4	41·8	52 14·96	+ 0·49	....	+ 59·83	0 53 15·28
	Sun 2 Limb	56·9	10·4	23·8	37·3	50·8	54 23·84	+ 0·49	....	+ 59·83	0 55 24·16
	α Ursæ Minoris	......	......	24·0	32·0	38·0	59 24·20	– 14·45	....	+ 59·83	1 0 9·58
	............*Microm.*	......	......	......	27·5	......					
	(*a*) α Aurigæ	55·7	14·8	......	......	......	4 33·89	+ 0·13	– 0·01	– 0·05	5 4 33·97
	β Geminorum	45·8	0·9	16·1	31·2	46·3	35 16·06	+ 0·32	0·01	+ 0·03	7 35 16·41
April 5	α Ursæ Minoris	......	16·0	......	32·5	......	0 23·63	– 14·45	....	+ 1·10	1 0 10·28
	............*Microm.*	......	20·5	......	26·0	......					
April 6	Sun 1 Limb	4·4	17·7	31·2	44·6	58·0	0 31·18	+ 0·49	....	+ 1·10	1 0 32·77
	Sun 2 Limb	13·5	26·8	40·3	53·8	7·2	2 40·32	+ 0·49	....	+ 1·10	1 2 41·91
	α Canis Majoris	25·4	39·0	52·8	6·8	20·8	37 52·96	+ 0·64	+ 1·26	+ 1·26	....
April 7	β Leonis	12·6	26·2	40·2	54·0	7·5	40 40·10	+ 0·42	+ 2·03	+ 2·03	....
	Vesta	53·8	7·3	21·2	35·0	48·8	46 21·22	+ 0·43	....	+ 2·03	11 46 23·68
April 8	Sun 1 Limb	22·0	35·5	49·0	2·3	15·8	7 48·92	+ 0·48	....	+ 2·25	1 7 51·65
	Sun 2 Limb	31·2	44·7	58·1	11·6	24·9	9 58·10	+ 0·48	....	+ 2·25	1 10 0·83
April 11	Sun 1 Limb	20·1	33·9	47·4	0·7	14·3	18 47·28	+ 0·47	....	+ 3·45	1 18 51·20
	Sun 2 Limb	29·7	43·3	56·8	10·3	23·8	20 56·78	+ 0·47	....	+ 3·45	1 21 0·70
	Venus 1 Limb	43·9	58·3	12·8	27·3	41·9	6 12·84	+ 0·37	....	+ 3·50	4 6 16·71
	α Aurigæ	52·3	11·2	30·3	49·3	8·4	4 30·26	+ 0·13	+ 3·49	+ 3·51	5 4 33·90
	............*Microm.*	......	20·6	......	39·7	......					
	β Orionis	7·8	21·3	34·7	48·0	1·6	6 34·68	+ 0·59	3·46	+ 3·51	5 6 38·78
	β Tauri	20·7	36·0	51·1	6·2	21·3	15 51·06	+ 0·32	3·53	+ 3·52	5 15 54·90
	α Canis Minoris	11·8	25·3	38·7	52·0	5·3	30 38·62	+ 0·49	3·66	+ 3·58	7 30 42·69
	β Geminorum	42·0	57·3	12·5	27·5	42·7	35 12·40	+ 0·32	3·52	+ 3·59	7 35 16·31
April 12	Sun 1 Limb	0·0	13·4	26·8	40·3	53·8	22 26·86	+ 0·47	....	+ 4·25	1 22 31·58

(*a*) Clock advanced one minute.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h m. s.
April 12	Sun 2 Limb	9·5	23·0	36·5	50·0	3·4	24 36·48	+ 0·47	....	+ 4·25	1 24 41·20
	α Hydræ	......	13·8	27·2	40·6	54·0	19 27·19	+ 0·58	+ 4·30	+ 4·55	9 19 32·32
	α Leonis	6·4	19·9	33·6	47·2	0·9	59 33·60	+ 0·45	4·57	+ 4·58	9 59 38·63
	α Ursæ Minor. S. P.	30·0	36·0	44·0	51·0	......	59 43·92	+ 15·56	....	+ 4·67	13 0 4·15
	....*Microm.*	......	40·5	......	47·0	......					
	α Virginis	2·6	15·9	29·4	43·2	56·5	16 29·52	+ 0·60	4·82	+ 4·67	13 16 34·79
	η Ursæ Majoris	20·1	40·9	1·5	22·4	43·0	41 1·59	+ 0·06	....	+ 4·68	13 41 6·33
	............*Microm.*	......	51·2	......	12·0	......					
	Saturn 1 Limb Ring	0·7	......	27·7	......	54·6	5 27·67	+ 0·60	....	+ 4·69	14 5 32·96
	Saturn 2 Limb Ring	......	17·2	......	44·3	......	5 30·75	+ 0 60	....	+ 4·69	14 5 36·04
	α Bootis	38·6	53·2	7·2	21·3	35·3	8 7·12	+ 0·39	4·89	+ 4·69	14 8 12·20
	α Ursæ Minoris	......	......	......	21·5	28·5	0 14·40	− 14·44	....	+ 4·92	1 0 4·88
	............*Microm.*	......	......	......	17·0	......					
April 13	Venus 1 Limb	14·9	29·6	44·3	58·8	13·3	15 44·18	+ 0·36	....	+ 4·98	4 15 49·52
	α Tauri	56·8	10·6	24·4	38·3	52·2	26 24·46	+ 0·42	+ 5·09	+ 4·99	4 26 29·87
	β Orionis	6·4	19·7	33·2	46·6	0·0	6 33·18	+ 0·59	4·94	+ 5·00	5 6 38·77
	β Tauri	19·2	34·3	49·5	4·8	20·0	15 49·56	+ 0·32	5·01	+ 5·01	5 15 54·89
	Jupiter 1 Limb	......	29·3	......	58·3	......	37 43·80	+ 0·36	....	+ 5·04	6 37 49·20
	Jupiter 2 Limb	17·3	......	46·4	......	15·3	37 46·33	+ 0·36	....	+ 5·04	6 37 51·73
	α Canis Minoris	10·4	23·7	37·2	50·5	3·8	30 37·12	+ 0·49	5·13	+ 5·08	7 30 42·69
	β Geminorum	40·7	55·8	11·0	26·1	41·1	35 10·94	+ 0·32	4·95	+ 5·09	7 35 16·35
	Vesta	50·0	3·6	17·3	31·2	44·7	42 17·36	+ 0·43	....	+ 5·25	11 42 23·04
	α Ursæ Minor. S. P.	32·5	39·0	44·5	51·5	2·0	59 45·54	+ 15·56	....	+ 5·31	13 0 6·41
	............*Microm.*	......	42·0	......	48·0	......					
	η Ursæ Majoris	19·2	40·0	0·9	21·8	42·1	41 0·84	+ 0·06	....	+ 5·34	13 41 6·24
	............*Microm.*	......	50·5	......	11·4	......					
April 14	α Ursæ Minoris	55·0	3·0	11·5	18·0	24·5	0 11·03	− 14·44	....	+ 6·79	1 0 3·38
	............*Microm.*	.... .	9·0	......	15·5	......					
April 15	Sun 1 Limb	1·0	14·5	27·8	41·4	54·8	33 27·90	+ 0·46	....	+ 6·81	1 33 35·17
	Sun 2 Limb	10·6	24·3	37·5	51·2	4·7	35 37·66	+ 0·46	....	+ 6·81	1 35 44·93
	Venus 1 Limb	47·2	1·8	16·4	30·8	45·5	25 16·34	+ 0·36	....	+ 6·93	4 25 23·63
	α Aurigæ	48·6	7·7	26·7	45·8	4·9	4 26·71	+ 0·13	+ 6·98	+ 6·95	5 4 33·79
	............*Microm.*	......	17·2	......	36·1	......					
	β Tauri	17·3	32·4	47·5	2·8	17·7	15 47·54	+ 0·32	7·00	+ 6·96	5 15 54·82
	Jupiter 1 Limb	18·4	......	47·5	......	16·5	38 47·47	+ 0·36	....	+ 7·02	6 38 54·85
	Jupiter 2 Limb	......	35·5	......	4·5	......	38 50·00	+ 0·36	....	+ 7·02	6 38 57·38
	β Geminorum	38·6	54·0	9·0	24·3	39·3	35 9·04	+ 0·32	6·81	+ 7·05	7 35 16·41
	α Hydræ	57·5	11·0	24·3	37·7	51·1	19 24·32	+ 0·58	7·13	+ 7·10	9 19 32·00
	α Leonis	3·8	17·3	30·8	44·4	57·8	59 30·82	+ 0·45	7·31	+ 7·12	9 59 38·39
	α Ursæ Majoris	29·5	58·5	27·2	56·0	25·0	53 27·13	− 0·24	....	+ 7·14	10 53 34·03
	............*Microm.*	......	12·5	......	41·2	......					
	Vesta	39·5	53·2	7·0	20·8	34·3	41 6·96	+ 0·43	....	+ 7·17	11 41 14·56
	γ Ursæ Majoris	19·0	42·0	5·3	28·0	51·0	45 5·19	− 0·03	....	+ 7·17	11 45 12·33
	............*Microm.*	......	54·0	......	17·0	......					
	α Ursæ Minor. S. P.	31·0	37·0	44·5	51·5	59·5	59 44·54	+ 15·56	....	+ 7·20	13 0 7·30
	............*Microm.*	......	41·5	......	47·5	......					
	Saturn 1 Limb Ring	......	......	......	47·5	......	4 33·98	+ 0·60	....	+ 7·23	14 4 41·81
	Saturn 2 Limb Ring	......	.....	37·2	......	4·2	4 37·22	+ 0·60	....	+ 7·23	14 4 45·05
April 18	Sun 1 Limb	5·4	18·8	32·5	46·3	59·7	44 32·54	+ 0·46	....	+ 8·88	1 44 41·88
	Sun 2 Limb	15·5	29·1	42·7	56·5	9·9	46 42·74	+ 0·46	....	+ 8·88	1 46 52·08
	Venus 1 Limb	7·3	22·2	36·6	51·4	6·0	39 36·70	+ 0·35	....	+ 8·97	4 39 46·02
	α Aurigæ	46·3	5·4	24·8	43·8	2·8	4 24·66	+ 0·13	+ 8·98	+ 8·98	5 4 33·77
	............*Microm.*	......	15·2	......	34·3	......					
	α Canis Minoris	6·4	19·7	33·3	46·7	0·1	30 33·24	+ 0·49	8·93	+ 9·04	7 30 42·77

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
April 18	β Geminorum	36·5	51·7	6·8	22·0	37·1	35 6·82	+ 0·32	+ 8·98	+ 9·05	7 35 16·19
	α Ursæ Majoris	27·5	56·2	25·5	54·5	23·0	53 25·39	– 0·24	....	+ 9·13	10 53 34·28
	..........Microm.	......	11·0	......	40·0	......					
	β Leonis	5·2	19·0	32·8	46·6	0·4	40 32·80	+ 0·42	9·30	+ 9·15	11 40 42·37
	α Ursæ Minor. S.P.	......	34·5	41·5	48·5	......	59 41·50	+ 15·55	....	+ 9·18	13 0 6·23
	..........Microm.	......	38·0	......	44·5	......					
	Saturn 1 Limb Ring	13·2	......	40·2	......	7·1	3 40·17	+ 0·60	....	+ 9·21	14 3 49·98
	Saturn 2 Limb Ring	......	29·7	......	56·6	......	3 43·15	+ 0·60	....	+ 9·21	14 3 52·96
	α Bootis	34·4	48·7	2·8	17·0	31·2	8 2·82	+ 0·39	9·25	+ 9·21	14 8 12·42
April 20	Sun 1 Limb	30·5	44·2	57·7	11·4	24·8	51 57·72	+ 0·45	....	+ 10·08	1 52 8·25
	Sun 2 Limb	40·9	54·4	8·1	21·9	35·3	54 8·12	+ 0·45	....	+ 10·08	1 54 18·65
	α Tauri	51·8	5·6	19·5	33·4	47·2	26 19·50	+ 0·42	+ 9·99	+ 10·14	4 26 30·06
	Venus 1 Limb	......	......	10·7	25·4	40·0	49 10·65	+ 0·35	....	+ 10·15	4 49 21·15
	α Orionis	39·5	52·8	6·5	19·8	33·0	46 6·32	+ 0·48	10·15	+ 10·18	5 46 16·98
	α Canis Majoris	16·1	30·2	44·0	58·0	11·8	37 44·02	+ 0·64	9·96	+ 10·20	6 37 54·86
	Jupiter 1 Limb	9·0	......	37·8	......	6·8	41 37·87	+ 0·36	....	+ 10·20	6 41 48·43
	Jupiter 2 Limb	......	26·2	......	55·0	......	41 40·60	+ 0·36	....	+ 10·20	6 41 51·16
	α Ursæ Majoris	27·2	56·0	25·0	54·0	22·7	53 25·00	– 0·24	....	+ 10·30	10 53 35·06
	..........Microm.	......	10·6	......	39·5	......					
	Vesta	13·0	26·7	40·3	54·0	7·7	38 40·34	+ 0·43	....	+ 10·32	11 38 51·09
	β Leonis	3·9	17·8	31·6	45·4	59·3	40 31·60	+ 0·42	10·49	+ 10·32	11 40 42·34
	γ Ursæ Majoris	16·0	39·4	2·0	25·0	48·2	45 2·23	– 0·03	....	+ 10·32	11 45 12·52
	..........Microm.	......	51·5	......	13·5	......					
	α Cassiopeæ S.P.	13·6	37·1	0·6	24·3	48·2	31 0·73	+ 1·17	....	+ 10·34	12 31 12·24
	..........Microm.	......	49·0	......	12·3	......					
	α Ursæ Minor. S.P.	......	38·0	46·0	51·0	......	59 45·70	+ 15·55	....	+ 10·35	13 0 11·60
	..........Microm.	......	44·5	......	48·5	......					
	α Virginis	56·6	10·2	23·8	37·4	50·8	16 23·76	+ 0·60	10·62	+ 10·35	13 16 34·71
	η Ursæ Majoris	14·3	35·2	56·1	16·6	37·3	40 55·90	+ 0·06	....	+ 10·36	13 41 6·32
	..........Microm.	......	45·5	......	6·3	......					
	Saturn 1 Limb Ring	......	50·6	......	17·7	......	3 4·15	+ 0·60	....	+ 10·37	14 3 15·12
	Saturn 2 Limb Ring	40·4	......	7·4	......	34·3	3 7·37	+ 0·60	....	+ 10·37	14 3 18·34
April 21	α Ursæ Majoris	26·6	55·5	24·3	53·4	22·2	53 24·43	– 0·24	....	+ 10·86	10 53 35·05
	..........Microm.	......	10·0	......	39·0	......					
	Vesta	48·7	2·5	16·3	30·0	43·8	38 16·26	+ 0·43	....	+ 10·88	11 38 27·57
	β Leonis	3·6	17·3	31·2	45·1	58·8	40 31·20	+ 0·42	+ 10·88	+ 10·88	11 40 42·50
	γ Ursæ Majoris	16·0	39·0	1·5	25·0	47·6	45 1·81	– 0·03	....	+ 10·88	11 45 12·66
	..........Microm.	......	50·3	......	13·3	......					
	(a) α Ursæ Minor. S.P.	33·0	37·0	......	......	......	59 45·36	+ 15·55	....	+ 10·91	13 0 11·82 †
	..........Microm.	8·0	14·0	19·0	32·0	44·0					
		56·0	22·0	......	......	......					
		INSTRUMENT REVERSED.									
	(b) α Ursæ Minor. S.P.	......	......	......	54·0	0·0	59 46·66	+ 13·33	....	+ 10·91	13 0 10·90 †
	..........Microm.	10·0	36·0	0·0	14·0	26·0					
	η Ursæ Majoris	14·2	35·0	55·7	16·5	37·0	40 55·78	+ 0·12	....	+ 10·92	13 41 6·82
	Saturn 1 Limb Ring	19·7	......	46·6	......	13·6	2 46·63	+ 0·60	....	+ 10·92	14 2 58·15
	Saturn 2 Limb Ring	......	36·2	......	3·2	......	2 49·70	+ 0·60	....	+ 10·92	14 3 1·22
	α Bootis	33·0	46·8	1·3	15·3	29·3	8 1·14	+ 0·41	10·94	+ 10·93	14 8 12·48
	α Ursæ Minoris	......	58·5	......	14·0	......	0 6·37	+ 12·27	....	+ 11·06	1 0 5·16
	..........Microm.	......	3·0	......	9·5	......					
April 22	Jupiter 1 Limb	......	35·6	......	4·7	......	42 50·15	+ 0·38	....	+ 11·13	6 43 1·66
	Jupiter 2 Limb	23·7	......	52·8	......	21·7	42 52·73	+ 0·38	....	+ 11·13	6 43 4·24
	Moon 1 Limb	24·8	39·8	55·3	10·7	25·8	15 55·28	+ 0·37	....	+ 11·14	7 16 6·79

(a) Micrometer 10^{r}·848, 10^{r}·048, 9^{r}·248, 8^{r}·348, 7^{r}·448, 6^{r}·548, and 4^{r}·748 before Wire III.

(b) Micrometer 4^{r}·748, 6^{r}·548, 8^{r}·348, 9^{r}·248, and 10^{r}·148 after Wire III.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
April 22	β Geminorum	34·4	49·5	4·5	19·6	34·8	35 4·56	+ 0·35	+ 11·14	+ 11·14	7 35 16·05
	α Hydræ	53·5	6·9	20·3	33·6	47·0	19 20·26	+ 0·59	11·08	+ 11·16	9 19 32·01
	α Leonis	59·9	13·5	27·0	40·5	54·2	59 27·02	+ 0·46	11·02	+ 11·17	9 59 38·65
	α Ursæ Majoris	26·5	55·2	24·4	53·0	22·0	53 24·23	− 0·14	....	+ 11·19	10 53 35·28
	Microm.	......	9·9	......	38·6	......					
	Vesta	26·6	40·3	53·9	7·7	21·5	37 54·00	+ 0·45	....	+ 11·21	11 38 5·66
	β Leonis	3·3	17·0	30·7	44·5	58·3	40 30·76	+ 0·44	11·30	+ 11·21	11 40 42·41
	γ Ursæ Majoris	15·4	38·3	1·4	24·2	47·3	45 1·33	+ 0·04	....	+ 11·21	11 45 12·58
	Microm.	......	49·8	......	12·9	......					
	α Ursæ Minor. S. P.	28·0	35·0	41·0	48·5	55·0	59 41·60	+ 13·33	....	+ 11·24	13 0 6·17
	Microm.	......	38·0	......	45·0	......					
	Saturn 1 Limb Ring	......	15·3	......	42·2	......	2 28·75	+ 0·60	....	+ 11·27	14 2 40·62
	Saturn 2 Limb Ring	4·7	......	31·8	......	58·8	2 31·77	+ 0·60	....	+ 11·27	14 2 43·64
	α Bootis	32·2	46·5	0·8	15·0	29·2	8 0·74	+ 0·41	11·34	+ 11·27	14 8 12·42
April 23	α Aurigæ	43·7	2·8	22·0	40·8	0·2	4 21·90	+ 0·17	+ 11·64	+ 11·66	5 4 33·73
	Microm.	......	12·4	......	31·4	......					
	α Canis Minoris	3·6	16·8	30·3	43·7	56·8	30 30·24	+ 0·50	11·85	+ 11·72	7 30 42·46
	β Geminorum	34·0	49·2	4·0	19·2	34·4	35 4·16	+ 0·35	11·53	+ 11·72	7 35 16·23
	φ Geminorum	45·1	0·0	14·8	29·8	44·8	43 14·90	+ 0·36	....	+ 11·73	7 43 26·99
	Moon 1 Limb	1·2	16·3	31·4	46·6	1·5	10 31·40	+ 0·39	....	+ 11·74	8 10 43·53
	γ Cancri	6·4	20·8	35·0	49·5	3·8	33 35·10	+ 0·39	....	+ 11·75	8 33 47·24
	ξ Cancri	14·5	29·0	43·4	57·8	12·2	59 43·38	+ 0·39	....	+ 11·77	8 59 55·54
	α Hydræ	52·8	6·1	19·5	33·0	46·4	19 19·56	+ 0·59	11·77	+ 11·79	9 19 31·94
	Vesta	5·7	19·3	33·2	46·9	0·8	37 33·18	+ 0·45	....	+ 11·89	11 37 45·52
	β Leonis	2·5	16·4	30·2	43·8	57·8	40 30·14	+ 0·44	11·91	+ 11·89	11 40 42·47
	γ Ursæ Majoris	14·6	37·4	0·5	23·7	46·7	45 0·56	+ 0·04	....	+ 11·89	11 45 12·49
	Microm.	......	49·0	......	12·0	......					
	α Cassiopeæ S. P.	11·6	35·2	58·8	22·5	46·2	30 58·90	+ 1·04	....	+ 11·93	12 31 11·87
	Microm.	......	47·2	......	10·8	......					
	α Ursæ Minor. S. P.	29·5	36·0	43·5	49·5	56·0	59 43·17	+ 13·33	....	+ 11·95	13 0 8·45
	Microm.	......	40·0	......	47·0	......					
	η Ursæ Majoris	12·5	33·6	54·5	15·3	36·2	40 54·37	+ 0·12	....	+ 11·97	13 41 6·46
	Microm.	......	44·0	......	4·5	......					
April 24	γ Cancri	5·4	19·8	34·2	48·5	3·0	33 34·18	+ 0·39	....	+ 12·78	8 33 47·35
	ξ Cancri	13·6	27·8	42·3	56·8	11·3	59 42·36	+ 0·39	....	+ 12·81	8 59 55·56
	Moon 1 Limb	29·2	43·8	58·6	13·3	27·8	3 58·54	+ 0·42	....	+ 12·81	9 4 11·77
	α Hydræ	51·7	5·1	18·5	32·0	45·5	19 18·56	+ 0·59	+ 12·75	+ 12·83	9 19 31·98
	λ Leonis	39·4	53·9	8·3	22·9	37·5	22 8·40	+ 0·38	....	+ 12·83	9 22 21·61
	ψ Leonis	7·3	21·0	34·7	48·5	2·4	34 34·78	+ 0·44	....	+ 12·84	9 34 48·06
	α Leonis	58·0	11·5	24·8	38·8	52·3	59 25·08	+ 0·46	12·94	+ 12·85	9 59 38·39
	α Ursæ Minoris	......	......	6·0	14·0	......	0 6·87	− 12·27	....	+ 12·95	1 0 7·55
	Microm.	......	......	......	10·0	......					
April 25	α Canis Majoris	12·6	26·4	40·3	54·3	8·0	37 40·32	+ 0·65	+ 13·58	+ 13·54	6 37 54·51
	Jupiter 1 Limb	12·2	......	41·5	......	10·4	44 41·37	+ 0·38	....	+ 13·55	6 44 55·30
	Jupiter 2 Limb	......	29·3	......	58·5	......	44 43·90	+ 0·38	....	+ 13·55	6 44 57·83
	α Hydræ	50·8	4·1	17·5	31·2	44·5	19 17·62	+ 0·59	13·68	+ 13·63	9 19 31·84
	λ Leonis	38·3	53·0	7·4	21·9	36·5	22 7·42	+ 0·38	....	+ 13·63	9 22 21·43
	β Leonis	0·7	14·8	28·5	42·2	56·6	40 28·56	+ 0·44	13·48	+ 13·72	11 40 42·72
	η Ursæ Majoris	10·2	31·0	51·8	12·7	33·5	40 51·84	+ 0·12	....	+ 13·80	13 41 5·76
	Microm.	......	41·5	......	2·2	......					
	Saturn 1 Limb Ring	7·1	......	34·0	......	1·0	1 34·03	+ 0·60	....	+ 13·81	14 1 48·44
	Saturn 2 Limb Ring	......	23·7	......	50·7	......	1 37·20	+ 0·60	....	+ 13·81	14 1 51·61
	α Bootis	30·0	44·0	58·2	12·3	26·3	7 58·16	+ 0·41	13·94	+ 13·82	14 8 12·39
	α Ursæ Minoris	50·5	......	6·0	13·5	19·5	0 5·80	− 12·27	....	+ 14·26	1 0 7·79
	Microm.	......	......	......	10·0	......					

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.		Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.		
		I.	II.	III.	IV.	V.				observed.	interpolated.			
		s.	s.	s.	s.	s.	m.	s.	s.	s.	s.	h.	m.	s.
April 26	α Aurigæ	......	......	19·0	38·0	57·1	4	18·88	+ 0·17	+ 14·64	+ 14·12	5	4	33·47
	Microm.	......	9·3	......	28·3	......								
	α Canis Majoris	11·8	25·5	39·6	53·4	7·3	37	39·52	+ 0·65	14·37	+ 14·48	6	37	54·65
	Jupiter 1 Limb	......	4·8	......	33·8	......	45	19·30	+ 0·39	....	+ 14·48	6	45	34·17
	Jupiter 2 Limb	53·0	......	21·8	......	50·8	45	21·87	+ 0·39	....	+ 14·48	6	45	36·71
	Moon 1 Limb	25·2	39·3	53·3	7·2	21·3	46	53·26	+ 0·48	....	+ 14·63	10	47	8·37
	α Cassiopeæ S. P.	9·0	32·4	56·0	19·5	43·1	30	55·99	+ 1·04	....	+ 14·69	12	31	11·72
	Microm.	......	44·1	......	7·8	......								
	α Ursæ Minor. S.P.	......	......	35·0	42·0	......	59	35·00	+ 13·32	....	+ 14·71	13	0	3·03
	Microm.	......	32·5	......	38·5	......								
	η Ursæ Majoris	10·5	31·0	51·5	12·5	33·4	40	51·80	+ 0·12	....	+ 14·73	13	41	6·65
	Microm.	......	41·7	......	2·0	......								
	Saturn 1 Limb Ring	......	2·6	......	29·7	......	1	16·15	+ 0·60	....	+ 14·74	14	1	31·49
	Saturn 2 Limb Ring	52·2	......	19·2	......	45·9	1	19·10	+ 0·60	....	+ 14·74	14	1	31·44
	α Bootis	29·1	43·2	57·3	11·6	26·0	7	57·44	+ 0·41	14·67	+ 14·75	14	8	12·60
April 27	Sun 1 Limb	41·0	54·8	8·7	22·4	36·1	18	8·60	+ 0·45	....	+ 15·16	2	18	24·21
	Sun 2 Limb	52·8	6·4	......	......	......	20	20·22	+ 0·45	....	+ 15·16	2	20	35·83
	α Tauri	46·6	0·5	14·3	28·1	42·0	26	14·30	+ 0·44	+ 15·15	+ 15·23	4	26	29·97
	β Tauri	9·0	23·9	39·1	54·1	9·3	15	39·08	+ 0·35	15·32	+ 15·25	5	15	54·68
	α Ursæ Minoris	......	......	6·0	11·5	20·0	0	5·80	− 12·26	....	+ 15·75	1	0	9·29
	Microm.	......	3·0	......	9·0	......								
April 28	α Aurigæ	39·4	58·4	17·4	36·5	55·8	4	17·53	+ 0·17	+ 15·97	+ 15·85	5	4	33·55
	Microm.	......	8·2	......	27·0	......								
	Venus 1 Limb	44·8	59·5	14·3	29·2	44·0	27	14·36	+ 0·36	....	+ 15·86	5	27	30·58
	α Canis Majoris	10·4	24·0	37·8	51·8	5·8	37	37·96	+ 0·65	15·90	+ 15·89	6	37	54·50
	β Leonis	58·8	12·4	26·1	39·9	53·8	40	26·20	+ 0·44	15·81	+ 16·01	11	40	42·65
	γ Ursæ Majoris	10·8	33·6	57·0	19·5	42·8	44	56·76	+ 0·04	....	+ 16·01	11	45	12·81
	Microm.	......	45·3	......	8·3	......								
	ο Virginis	9·0	22·4	35·9	49·3	3·0	56	35·92	+ 0·48	....	+ 16·01	11	56	52·41
	η Virginis	49·3	2·4	15·8	29·0	42·3	11	15·76	+ 0·54	....	+ 16·02	12	11	32·32
	Moon 1 Limb	24·0	37·5	51·0	4·6	18·3	27	51·08	+ 0·56	....	+ 16·02	12	28	7·66
	α Cassiopeæ S.P.	7·9	31·3	54·8	18·2	41·7	30	54·73	+ 1·04	....	+ 16·02	12	31	11·79
	Microm.	......	43·0	......	6·2	......								
	δ Virginis	38·8	52·2	5·5	18·7	32·0	47	5·44	+ 0·51	....	+ 16·03	12	47	21·98
	α Ursæ Minor. S.P.	26·0	33·0	......	47·0	53·5	59	39·87	+ 13·32	....	+ 16·04	13	0	9·23
	Microm.	......	37·0	......	42·0	......								
	θ Virginis	45·8	59·0	12·4	25·8	39·2	1	12·44	+ 0·57	....	+ 16·04	13	1	29·05
	η Ursæ Majoris	8·8	29·6	50·3	11·0	32·0	40	50·34	+ 0·12	....	+ 16·05	13	41	6·51
	Microm.	......	40·0	......	0·7	......								
	Saturn 1 Limb Ring	13·1	......	40·0	......	7·1	0	40·07	+ 0·60	....	+ 16·06	14	0	56·73
	Saturn 2 Limb Ring	......	29·8	......	56·6	......	0	43·20	+ 0·60	....	+ 16·06	14	0	59·86
	α Bootis	27·6	41·8	55·8	10·2	24·5	7	55·98	+ 0·41	16·14	+ 16·06	14	8	12·45
	α Ursæ Minoris	......	59·0	......	......	......	0	6·35	− 12·26	....	+ 16·29	1	0	10·38
	Microm.	......	4·0	......	......	......								
April 29	Sun 1 Limb	......	......	......	......	9·7	25	42·33	+ 0·45	....	+ 16·32	2	25	59·10
	Sun 2 Limb	26·3	39·8	53·7	7·5	21·4	27	53·74	+ 0·45	....	+ 16·32	2	28	10·51
	α Tauri	45·4	59·3	13·0	27·0	40·8	26	13·10	+ 0·44	+ 16·34	+ 16·36	4	26	29·90
	α Aurigæ	39·0	58·0	17·0	36·0	55·2	4	17·07	+ 0·17	16·42	+ 16·37	5	4	33·61
	Microm	......	7·7	......	26·6	......								
	β Tauri	7·8	23·0	38·0	53·1	8·4	15	38·06	+ 0·35	16·32	+ 16·38	5	15	54·79
	Venus 1 Limb	28·0	42·7	57·7	12·5	27·3	31	57·64	+ 0·36	....	+ 16·38	5	32	14·38
	α Orionis	33·1	46·5	0·0	13·2	26·8	45	59·92	+ 0·49	16·46	+ 16·38	5	46	15·79
	α Canis Majoris	10·0	23·4	37·4	1·3	5·3	37	37·48	+ 0·65	16·36	+ 16·40	6	37	54·53
	Jupiter 1 Limb	48·2	......	17·3	......	46·2	47	17·23	+ 0·39	....	+ 16·40	6	47	34·02
	Jupiter 2 Limb	......	5·3	......	34·2	......	47	19·75	+ 0·39	....	+ 16·40	6	47	36·54

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
April 29	Vesta..................	37·1	50·6	4·3	18·0	31·8	36 4·36	+ 0·45	....	+ 16·48	11 36 21·29
	γ Ursæ Majoris........	10·1	32·8	56·0	18·5	41·6	44 55·76	+ 0·04	....	+ 16·48	11 45 12·28
	............*Microm.*	......	44·1	......	7·2	......					
	α Cassiopeæ S. P......	7·3	30·7	54·3	17·8	41·2	30 54·31	+ 1·04	....	+ 16·49	12 31 11·84
	............*Microm.*	......	42·7	......	6·2	......					
	δ Virginis..............	38·4	51·5	5·0	18·3	31·7	47 4·98	+ 0·51	....	+ 16·50	12 47 21·99
	α Ursæ Minor. S.P....	24·0	29·5	35·5	41·5	......	59 35·78	+ 13·32	....	+ 16·50	13 0 5·60
	............*Microm.*	......	32·5	......	38·0	......					
	Moon 1 Limb..........	34·7	48·5	2·3	16·2	30·0	20 2·34	+ 0·60	....	+ 16·51	13 20 19·45
	ϰ Virginis..............	26·5	40·1	53·6	7·1	20·8	3 53·62	+ 0·60	....	+ 16·52	14 4 10·74
	ι Virginis..............	42·9	56·3	9·7	23·2	36·4	7 9·70	+ 0·57	....	+ 16·52	14 7 26·79
April 30	α Ursæ Majoris........	20·3	49·0	18·0	47·0	16·0	53 18·04	− 0·14	....	+ 16·85	10 53 34·75
	............*Microm.*	......	3·5	......	32·5	......					
	Vesta....................	28·5	42·0	55·7	9·5	23·5	35 55·84	+ 0·45	....	+ 16·86	11 36 13·15
	β Leonis................	57·4	11·3	25·2	39·0	52·8	40 25·14	+ 0·44	+ 16·86	+ 16·86	....
	γ Ursæ Majoris........	9·3	32·0	55·3	18·0	41·3	44 55·19	+ 0·04	....	+ 16·86	11 45 12·09
	............*Microm.*	......	43·8	......	6·6	......					
May 1	α Bootis................	25·9	40·0	54·0	8·2	22·5	7 54·12	+ 0·43	+ 17·99	+ 17·97	14 8 12·52
	ξ² Libræ................	·8·4	21·8	35·5	49·0	2·7	47 35·48	+ 0·63	....	+ 18·00	14 47 54·11
	Moon 2 Limb..........	45·3	59·7	14·3	28·7	43·3	16 14·26	+ 0·72	....	+ 18·02	15 16 33·00
	α Coroniæ borealis....	58·1	13·1	28·0	43·0	57·9	27 28·02	+ 0·37	18·03	+ 18·03	15 27 46·42
	α Serpentis............	27·8	41·1	54·6	8·1	21·5	35 54·62	+ 0·51	18·02	+ 18·03	15 36 13·16
	α Ursæ Minoris.......	......	......	......	14·0	22·0	0 7·53	− 12·61	....	+ 18·44	1 0 13·16 †
	............*Microm.*	......	......	......	9·0	......					
May 2	Sun 1 Limb............	37·9	51·7	5·6	19·4	33·2	37 5·56	+ 0·46	....	+ 18·51	2 37 24·53
	Sun 2 Limb............	50·2	3·8	17·7	31·6	45·5	39 17·76	+ 0·46	....	+ 18·51	2 39 36·73
	α Aurigæ..............	36·7	55·5	14·8	34·0	53·0	4 14·80	+ 0·18	+ 18·66	+ 18·62	5 4 33·60
	............*Microm.*	......	5·3	......	24·3	......					
	β Tauri..................	5·1	20·4	35·5	50·7	6·0	15 35·54	+ 0·36	18·81	+ 18·63	5 15 54·53
	Venus 1 Limb..........	31·4	46·3	1·0	15·9	30·9	46 1·10	+ 0·38	....	+ 18·65	5 46 20·13
	α Canis Majoris.......	7·3	21·3	35·2	49·2	3·0	37 35·20	+ 0·67	18·59	+ 18·69	6 37 54·56
	Jupiter 1 Limb........	......	4·0	......	32·8	......	49 18·40	+ 0·40	....	+ 18·70	6 49 37·50
	Jupiter 2 Limb........	52·0	......	21·2	......	50·0	49 21·07	+ 0·40	....	+ 18·70	6 49 40·17
	α Ursæ Majoris........	18·3	47·3	16·3	45·3	14·3	53 16·29	− 0·14	....	+ 18·86	10 53 35·01
	............*Microm.*	......	2·0	......	30·5	......					
	Vesta....................	16·2	29·9	43·6	57·3	11·1	35 43·62	+ 0·47	....	+ 18·89	11 36 2·98
	β Leonis................	55·5	9·3	23·2	37·0	50·8	40 23·16	+ 0·46	18·80	+ 18·90	11 40 42·52
	γ Ursæ Majoris........	7·1	30·3	53·5	16·3	39·5	44 53·37	+ 0·05	....	+ 18·90	11 45 12·32
	............*Microm.*	......	42·0	......	4·9	......					
	α Cassiopeæ S. P.......	5·0	28·6	52·1	15·6	39·3	30 52·13	+ 1·07	....	+ 18·93	12 31 12·13
	............*Microm.*	......	40·4	......	3·9	......					
	α Ursæ Minor. S.P....	......	30·0	36·5	40·5	......	59 35·80	+ 13·71	....	+ 18·95	13 0 8·46
	............*Microm.*	......	34·0	......	38·5	......					
	ζ Ursæ Majoris........	15·0	38·6	2·2	25·9	49·6	17 2·29	+ 0·02	....	+ 18·96	13 17 21·27
	............*Microm.*	......	50·4	......	14·3	......					
	η Ursæ Majoris........	6·0	26·5	47·7	8·3	29·3	40 47·54	+ 0·13	....	+ 18·98	13 41 6·65
	............*Microm.*	......	37·3	......	57·7	......					
	Saturn 1 Limb Ring..	2·1	......	29·0	......	55·8	59 28·97	+ 0·62	....	+ 18·99	13 59 48·58
	Saturn 2 Limb Ring..	......	18·6	......	45·4	......	59 32·00	+ 0·62	....	+ 18·99	13 59 51·61
	α Bootis................	24·6	38·9	53·2	7·4	21·5	7 53·12	+ 0·43	19·00	+ 19·00	14 8 12·55
	α Ursæ Majoris.......	......	58·0	6·0	......	......	0 5·37	− 12·61	....	+ 19·44	1 0 12·20
	............*Microm.*	......	......	......	8·5	......					
May 3	Sun 2 Limb............	39·3	52·9	7·0	20·5	34·5	43 6·84	+ 0·45	....	+ 19·51	2 43 26·80

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
May 3	α Canis Minoris	55·5	8·9	22·1	35·5	49·0	30 22·20	+ 0·52	+ 19·73	+ 19·70	7 30 42·42
	β Geminorum	25·6	40·6	55·8	11·0	26·3	34 55·86	+ 0·36	19·67	+ 19·70	7 35 15·92
May 5	α Ursæ Minor. S. P.	......	......	......	45·0	......	59 38·00	+ 13·70	....	+ 21·00	13 0 12·70 †
	Saturn 1 Limb Ring	......	23·4	......	50·3	......	58 36·85	+ 0·62	....	+ 21·03	13 58 58·50
	Saturn 2 Limb Ring	12·8	......	39·8	......	6·6	58 39·73	+ 0·62	....	+ 21·03	13 59 1·38
	α Bootis	22·8	37·0	51·1	5·3	19·3	7 51·10	+ 0·43	+ 21·03	+ 21·03	....
	α Ursæ Minoris	......	......	......	10·5	17·0	0 3·70	− 12·60	....	+ 21·30	1 0 12·40
May 6	Sun 1 Limb	57·3	11·3	25·2	39·0	53·0	52 25·16	+ 0·45	....	+ 21·35	2 52 46·96
	Sun 2 Limb	10·2	23·9	37·9	51·8	5·8	54 37·92	+ 0·45	....	+ 21·35	2 54 59·72
	α Aurigæ	34·0	52·8	12·0	31·0	50·2	4 11·94	+ 0·18	+ 21·50	+ 21·41	5 4 33.53
	Microm.	......	2·3	......	21·3	......					
	β Tauri	2·5	17·3	32·6	48·0	3·2	15 32·72	+ 0·36	21·62	+ 21·41	5 15 54·49
	α Orionis	28·1	41·5	55·0	8·3	21·8	45 54·94	+ 0·51	21·37	+ 21·42	5 46 16·87
	Venus 1 Limb	0·8	15·5	30·3	45·3	0·3	4 30·44	+ 0·38	....	+ 21·43	6 4 52·25
	α Canis Majoris	4·7	18·8	32·5	46·3	0·3	37 32·52	+ 0·67	21·22	+ 21·44	6 37 54·63
	Jupiter 1 Limb	37·8	......	6·8	......	35·8	52 6·80	+ 0·40	....	+ 21·45	6 52 28·65
	Jupiter 2 Limb	......	54·5	......	23·5	......	52 9·00	+ 0·40	....	+ 21·45	6 52 30·85
	β Leonis	52·8	6·7	20·4	34·2	47·9	40 20·40	+ 0·46	21·53	+ 21·61	11 40 42·47
	γ Ursæ Majoris	4·8	27·6	50·8	13·7	36·7	44 50·69	+ 0·05	....	+ 21·62	11 45 12·36
	Microm.	......	39·2	......	2·0	......					
	α Cassiopeæ S. P.	2·6	26·1	49·8	13·3	36·8	30 49·74	+ 1·07	....	+ 21·64	12 31 12·45
	Microm.	......	38·1	......	1·5	......					
	α Ursæ Minor. S. P.	25·5	31·5	38·5	46·0	52·5	59 38·96	+ 13·70	....	+ 21·66	13 0 14·32
	Microm.	......	36·0	......	42·0	......					
	ζ Ursæ Majoris	12·0	35·6	59·5	23·1	46·7	16 59·36	+ 0·02	....	+ 21·67	13 17 21·05
	Microm.	......	47·4	......	11·2	......					
	η Ursæ Majoris	3·2	24·0	44·8	5·5	26·5	40 44·79	+ 0·13	....	+ 21·68	13 41 6·60
	Microm.	......	34·3	......	55·2	......					
	Saturn 1 Limb Ring	52·7	......	19·8	......	46·6	58 19·70	+ 0·62	....	+ 21·69	13 58 42·01
	Saturn 2 Limb Ring	......	9·3	......	35·9	......	58 22·60	+ 0·62	....	+ 21·69	13 58 44·91
	α Cygni	51·0	9·5	28·3	47·0	6·0	35 28·26	+ 0·19	+ 22·31	+ 22·25	20 35 50·70 †
	Microm.	......	18·6	......	37·4	......					
	α Ursæ Minoris	......	57·5	4·0	8·0	18·0	0 3·53	− 12·60	....	+ 22·40	1 0 13·33 †
	Microm.	......	1·0	......	5·5	......					
May 7	Sun 1 Limb	......	......	......	30·0	44·0	56 16·08	+ 0·45	....	+ 22·46	2 56 38·99 †
	Sun 2 Limb	1·3	15·2	29·1	43·0	57·0	58 29·12	+ 0·45	....	+ 22·46	2 58 52·03 †
	Mercury 1 Limb	......	15·0	29·0	43·2	57·5	27 29·06	+ 0·43	....	+ 22·48	3 27 51·97 †
	α Tauri	39·4	53·1	7·0	20·7	34·5	26 6·94	+ 0·45	22·49	+ 22·51	4 26 29·90 †
	α Aurigæ	32·7	51·9	11·0	30·0	49·2	4 10·96	+ 0·18	22·47	+ 22·53	5 4 33·67 †
	β Tauri	1·5	16·5	32·0	47·0	2·0	15 31·80	+ 0·36	22·54	+ 22·54	5 15 54·70 †
	α Orionis	27·0	40·4	53·7	7·1	20·5	45 53·74	+ 0·51	22·57	+ 22·56	5 46 16·81 †
	Venus 1 Limb	34·4	49·2	4·1	19·0	......	9 4·12	+ 0·38	....	+ 22·57	6 9 27·07 †
	Jupiter 1 Limb	......	35·0	......	4·2	......	52 49·60	+ 0·40	....	+ 22·59	6 53 12·59 †
	Jupiter 2 Limb	23·0	......	52·0	......	......	52 51·96	+ 0·40	....	+ 22·59	6 53 14·95 †
	Vesta	16·5	30·2	44·0	57·5	11·4	35 43·92	+ 0·47	....	+ 22·75	11 36 7·14 †
	α Ursæ Minor. S. P.	......	......	40·0	46·0	51·5	59 39·68	+ 13·70	....	+ 22·79	13 0 16·17 †
	Microm.	......	38·0	......	42·0	......					
	Saturn 1 Limb Ring	......	48·5	......	15·8	......	58 2·15	+ 0·62	....	+ 22·82	13 58 25·59 †
	Saturn 2 Limb Ring	38·2	......	5·2	......	......	58 5·16	+ 0·62	....	+ 22·82	13 58 28·60 †
	Moon 2 Limb	47·5	2·3	16·7	31·5	46·0	45 16·80	+ 0·73		+ 23·08	21 45 40·61 †
	α Aquarii	31·4	44·5	57·7	11·1	24·5	56 57·84	+ 0·57	+ 23·10	+ 23·09	21 57 21·50 †
	α Pegasi	......	......	11·6	25·4	39·2	56 11·66	+ 0·47	23·20	+ 23·12	22 56 35·25 †
	α Andromedæ	1·0	15·7	31·0	46·0	1·3	59 31·00	+ 0·36	23·05	+ 23·16	23 59 54·52 †
	γ Pegasi	56·2	9·6	23·5	37·2	51·0	4 23·50	+ 0·47	23·18	+ 23·16	0 4 47·13 †

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.		Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.		
		I.	II.	III.	IV.	V.				observed.	interpolated.			
		s.	s.	s.	s.	s.	m.	s.	s.	s.	s.	h.	m.	s.
May 8	α Ursæ Minoris	......	......	59·0	8·0	......	0	1·12	− 12·60	....	+ 24·11	1	0	12·63 †
	.... *Microm.*	......	59·0	......	5·0	......								
May 9	Sun 1 Limb...........	32·3	46·2	0·2	14·3	28·2	4	0·24	+ 0·44	....	+ 24·19	3	4	24·87 †
	Sun 2 Limb...........	45·5	59·4	......	27·4	41·4	6	13·42	+ 0·44	....	+ 24·19	3	6	38·05 †
	α Aurigæ..............	31·0	50·0	9·2	28·2	47·4	4	9·16	+ 0·18	+ 24·26	+ 24·27	5	4	33·61 †
	α Orionis..............	25·2	38·5	52·0	5·4	18·8	45	51·98	+ 0·51	24·32	+ 24·29	5	46	16·78 †
	Venus 1 Limb........	37·4	52·2	7·1	22·0	......	18	7·13	+ 0·38	....	+ 24·31	6	18	31·82 †
	α Canis Majoris.......	......	15·5	29·4	43·2	57·2	37	29·39	+ 0·67	24·32	+ 24·32	6	37	54·38 †
	Jupiter 1 Limb........	47·6	......	16·5	......	......	54	16·52	+ 0·40	....	+ 24·33	6	54	41·25 †
	Jupiter 2 Limb........	......	4·2	......	33·3	......	54	18·75	+ 0·40	....	+ 24·33	6	54	43·48 †
	α Canis Minoris......	50·7	4·1	17·4	30·7	44·1	30	17·40	+ 0·52	24·46	+ 24·35	7	30	42·27 †
	β Geminorum..........	21·0	36·2	51·2	6·3	21·4	34	51·22	+ 0·36	24·23	+ 24·36	7	35	15·94 †
	Vesta....................	28·8	42·4	56·2	9·9	23·6	35	56·18	+ 0·47		+ 24·04	11	36	20·69
	β Leonis................	50·3	3·8	17·7	31·7	45·5	40	17·80	+ 0·46	24·11	+ 24·04	11	40	42·30
	α Cassiopeæ S. P.	0·1	23·8	47·3	10·8	34·4	30	47·30	+ 1·07	....	+ 24·07	12	31	12·44
	.... *Microm.*	......	35·5	......	59·2	......								
	α Ursæ Minor. S. P....	21·5	28·0	35·5	42·5	......	59	35·38	+ 13·70	....	+ 24·09	13	0	13·17
	.... *Microm.*	......	33·0	......	39·0	......								
	α Virginis..............	43·2	56·7	10·2	23·6	37·2	16	10·18	+ 0·63	24·21	+ 24·10	13	16	34·91
	Saturn 1 Limb Ring..	1·5	......	28·4	......	55·4	57	28·43	+ 0·62	....	+ 24·12	13	57	53·17
	Saturn 2 Limb Ring..	......	17·8	......	44·8	......	57	31·30	+ 0·62	....	+ 24·12	13	57	56·04
	α Bootis.........	19·9	33·8	48·1	2·2	16·3	7	48·06	+ 0·43	24·09	+ 24·13	14	8	12·62
	α Pegasi................	43·1	56·8	10·5	24·3	37·9	56	10·52	+ 0·47	24·40	+ 24·39	22	56	35·38
	Moon 2 Limb..........	4·5	18·4	32·2	46·0	59·8	29	32·18	+ 0·64	....	+ 24·41	23	29	57·23
	α Andromedæ	59·8	14·7	29·7	44·8	0·0	59	29·80	+ 0·36	24·32	+ 24·42	23	59	54·58
	α Cassiopeæ............	1·3	24·5	48·3	11·4	35·6	30	48·26	+ 0·03	....	+ 24·44	0	31	12·73
	.... *Microm.*	......	36·7	......	0·0	......								
	α Ursæ Minoris.......	50·0	57·0	5·0	10·5	18·0	0	3·83	− 12·60	....	+ 24·45	1	0	15·68
	.... *Microm.*	......	0·5	......	6·5	......								
May 10	Sun 1 Limb...........	25·5	39·5	53·7	7·5	21·4	7	53·52	+ 0·32	....	+ 24·51	3	8	18·35
	Sun 2 Limb...........	39·2	53·3	7·1	21·2	35·3	10	7·22	+ 0·32	....	+ 24·51	3	10	32·05
	Mercury 1 Limb	45·8	59·8	14·4	28·6	43·4	53	14·40	+ 0·30	....	+ 24·53	3	53	39·23
	α Aurigæ..............	30·7	49·8	8·8	28·0	47·1	4	8·90	+ 0·13	+ 24·57	+ 24·57	5	4	33·60
	.... *Microm.*	......	59·5	......	18·4	......								
	β Tauri..................	59·8	14·8	29·7	44·8	0·0	15	29·82	+ 0·26	24·61	+ 24·57	5	15	54·65
	α Orionis..............	24·9	38·4	51·7	5·3	18·6	45	51·78	+ 0·37	24·65	+ 24·59	5	46	16·74
	Venus 1 Limb........	7·1	21·8	36·6	51·5	6·6	22	36·72	+ 0·28	....	+ 24·61	6	23	1·61
	α Canis Majoris.......	1·6	15·4	29·4	43·3	57·2	37	29·38	+ 0·49	24·50	+ 24·61	6	37	54·48
	Vesta....................	37·6	51·3	4·9	18·7	32·4	36	4·98	+ 0·34	....	+ 24·77	11	36	30·09
	β Leonis................	49·5	3·5	17·3	31·0	44·9	40	17·24	+ 0·34	24·78	+ 24·77	11	40	42·35
	α Cassiopeæ S.P.......	59·3	23·2	46·7	10·5	33·7	30	46·67	+ 0·78	....	+ 24·79	12	31	12·24
	.... *Microm.*	......	34·8	......	58·5	......								
	α Ursæ Minor. S.P....	......	32·0	40·5	47·0	......	59	39·80	+ 9·90	....	+ 24·81	13	0	14·51
	.... *Microm.*	......	36·5	......	43·5	......								
	Saturn 1 Limb Ring..	......	58·5	......	25·6	......	57	12·05	+ 0·45	....	+ 24·84	13	57	37·34
	Saturn 2 Limb Ring..	47·7	......	14·6	......	41·6	57	14·63	+ 0·45	....	+ 24·84	13	57	39·92
May 11	Sun 1 Limb...........	19·4	33·3	47·3	1·3	15·4	11	47·34	+ 0·32	....	+ 25·25	3	12	12·91
	Sun 2 Limb...........	33·1	46·8	0·8	14·9	28·8	14	0·88	+ 0·32	....	+ 25·25	3	14	26·45
	α Aurigæ..............	30·2	49·2	8·2	27·2	46·3	4	8·20	+ 0·13	+ 25·27	+ 25·31	5	4	33·64
	.... *Microm.*	......	58·6	......	17·7	......								
	α Orionis..............	24·4	37·7	51·2	4·7	18·0	45	51·20	+ 0·37	25·23	+ 25·33	5	46	16·90
	Venus 1 Limb........	34·6	49·4	4·2	19·0	34·0	27	4·24	+ 0·28	....	+ 25·35	6	27	29·87
	Vesta....................	47·9	1·5	15·2	28·8	42·5	36	15·18	+ 0·34	....	+ 25·54	11	36	41·06
	β Leonis................	48·9	2·5	16·2	30·2	44·1	40	16·38	+ 0·34	25·63	+ 25·54	11	40	42·26

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.		Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.		
		I.	II.	III.	IV.	V.				observed.	interpolated.			
		s.	s.	s.	s.	s.	m.	s.	s.	s.	s.	h.	m.	s.
May 11	α Ursæ Minoris.......	......	......	......	5·0	12·0	59	58·63	− 9·10	....	+ 26·06	1	0	15·59
	............Microm.	......	......	......	1·0	......								
May 12	Sun 1 Limb............	13·4	27·3	41·4	55·5	9·4	15	41·40	+ 0·32	....	+ 26·15	3	16	7·87
	Sun 2 Limb............	27·2	41·2	55·3	9·5	23·3	17	55·30	+ 0·32	....	+ 26·15	3	18	21·77
	Mercury 1 Limb......	37·7	......	6·8	......	......	10	6·75	+ 0·30	....	+ 26·18	4	10	33·23
	α Aurigæ..............	29·2	48·2	7·4	26·2	45·3	4	7·27	+ 0·13	+ 26·20	+ 26·22	5	4	33·62
	............Microm.	......	57·8	......	16·8	......								
	β Tauri..............	58·0	13·2	28·4	43·4	58·4	15	28·28	+ 0·26	26·15	+ 26·23	5	15	54·77
	α Orionis..............	23·3	36·7	50·2	3·5	16·8	45	50·10	+ 0·37	26·33	+ 26·25	5	46	16·72
	Venus 1 Limb.........	59·6	14·3	29·0	43·8	58·5	31	29·04	+ 0·28	....	+ 26·28	6	31	55·60
	α Canis Majoris.......	59·8	13·8	27·7	41·6	55·5	37	27·68	+ 0·49	26·18	+ 26·28	6	37	54·45
	Jupiter 1 Limb........	......	15·8	......	44·8	......	56	30·30	+ 0·30	....	+ 26·29	6	56	56·89
	Jupiter 2 Limb........	3·6	......	32·8	......	1·6	56	32·67	+ 0·30	....	+ 26·29	6	56	59·26
	β Leonis..............	47·8	1·5	15·3	29·3	43·1	40	15·40	+ 0·34	26·60	+ 26·54	11	40	42·28
	α Ursæ Minor. S.P....	24·5	32·0	39·0	46·5	53·0	59	39·03	+ 9·90	....	+ 26·61	13	0	15·54
	............Microm.	......	36·5	......	41·0	......								
	ζ Ursæ Majoris........	......	30·7	54·5	18·3	42·0	16	54·52	+ 0·02	....	+ 26·62	13	17	21·16
	............Microm.	......	42·5	......	6·4	......								
May 13	α Leonis..............	43·1	56·6	10·3	24·0	37·5	59	10·30	+ 0·35	+ 27·60	+ 27·69	9	59	38·34
	Vesta..................	13·0	26·5	40·0	53·8	7·6	36	40·18	+ 0·35	....	+ 27·77	11	37	8·30
	β Leonis..............	46·6	0·5	14·0	27·8	41·8	40	14·14	+ 0·34	27·85	+ 27·78	11	40	42·26
	α Cassiopeæ S.P.......	57·2	20·8	44·2	7·9	31·2	30	44·31	+ 0·78	....	+ 27·82	12	31	12·91
	............Microm.	......	32·6	......	56·3	......								
	α Ursæ Minor. S.P....	......	33·0	39·0	45·5	......	59	39·10	+ 9·90	....	+ 27·86	13	0	16·86
	....Microm.	......	36·5	......	42·0	......								
	α Virginis.............	39·8	53·2	6·8	20·1	33·6	16	6·70	+ 0·46	27·85	+ 27·88	13	16	35·04
	α Bootis	16·1	30·2	44·3	58·5	12·6	7	44·34	+ 0·31	27·93	+ 27·94	14	8	12·59
	α Ursæ Minoris........	45·0	52·0	59·0	4·5	12·5	59	58·04	− 9·10	....	+ 28·65	1	0	17·59
	............Microm.	.... .	54·0	......	0·0	......								
May 14	Sun 1 Limb............	2·6	16·5	30·3	44·5	58·3	23	30·44	+ 0·32	....	+ 28·81	3	23	59·57
	Sun 2 Limb............	16·4	30·6	44·4	58·6	12·8	25	44·56	+ 0·32	....	+ 28·81	3	26	13·69
	Mercury 1 Limb......	3·9	18·5	33·2	47·8	2·4	26	33·16	+ 0·29	....	+ 28·87	4	27	2·32
	α Canis Majoris........	57·3	11·1	24·9	38·7	52·6	37	24·92	+ 0·49	+ 28·93	+ 29·02	6	37	54·43
	Venus 1 Limb.........	43·2	58·0	13·1	27·9	42·8	40	13·00	+ 0·28	....	+ 29·03	6	40	42·31
	Jupiter 1 Limb........	31·3	......	0·3	......	28·9	58	0·17	+ 0·30	....	+ 29·05	6	58	29·52
	Jupiter 2 Limb........	......	48·2	......	17·0	......	58	2·60	+ 0·30	....	+ 29·05	6	58	31·95
	α Canis Minoris.......	46·1	59·3	12·8	26·1	39·5	30	12·76	+ 0·38	29·20	+ 29·08	7	30	42·22
	β Geminorum..........	16·3	31·4	46·5	1·7	16·8	34	46·54	+ 0·26	28·96	+ 29·08	7	35	15·88
	Vesta..................	27·2	40·8	54·6	8·3	21·8	36	54·54	+ 0·35	....	+ 29·35	11	37	24·24
	β Leonis..............	45·0	58·7	12·5	26·4	40·3	40	12·58	+ 0·34	29·40	+ 29·36	11	40	42·28
	α Cassiopeæ S. P......	55·4	19·0	42·7	6·2	29·8	30	42·66	+ 0·78	....	+ 29·41	12	31	12·85
	............Microm.	......	31·0	......	54·5	......								
	α Ursæ Minor. S.P....	25·0	30·5	38·5	46·0	52·5	59	38·67	+ 9·90	....	+ 29·45	13	0	18·02
	............Microm.	......	36·0	......	41·5	......								
	ζ Ursæ Majoris........	. ....	27·9	51·8	15·5	39·2	16	51·78	+ 0·02	....	+ 29·47	13	17	21·27
	............Microm.	......	40·0	......	3·6	......								
	Saturn 1 Limb Ring..	38·1	......	5·3	......	32·1	56	5·17	+ 0·45	....	+ 29·51	13	56	35·13
	Saturn 2 Limb Ring..	......	54·4	......	21·5	......	56	7·95	+ 0·45	....	+ 29·51	13	56	37·91
	α Bootis.............. ..	14·3	28·4	42·6	57·0	11·2	7	42·70	+ 0·31	29·57	+ 29·52	14	8	12·53
May 15	Sun 1 Limb............	57·3	11·3	25·2	39·5	53·6	27	25·38	+ 0·32	....	+ 30·44	3	27	56·14
	Sun 2 Limb............	11·8	25·8	39·8	53·9	8·2	29	39·90	+ 0·32	....	+ 30 44	3	30	10·66
	α Aurigæ..............	24·7	43·7	2·8	22·2	41·1	4	2·90	+ 0·13	+ 30·58	+ 30·54	5	4	33·57
	............Microm.	......	53·5	......	12·3	......								
	α Orionis..............	19·0	32·5	45·7	59·3	12·8	45	45·86	+ 0·37	30·57	+ 30·59	5	46	16·82

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
May 15	α Canis Majoris·······	55·5	9·4	23·3	37·1	51·0	37 23·26	+ 0·49	+30·58	+30·65	6 37 54·40
	α Canis Minoris·······	44·4	57·7	11·2	24·5	37·9	30 11·14	+ 0·38	30·81	+30·73	7 30 42·25
	β Geminorum··········	14·7	29·6	44·8	0·0	15·0	34 44·82	+ 0·26	30·67	+30·74	7 35 15·82
	α Ursæ Minoris·······	……	47·5	56·0	……	……	59 54·93	− 9·10	………	+32·26	1 0 18·09
	···········*Microm.* ····	……	52·0	……	……	……					
May 16	Sun 1 Limb···········	52·4	6·8	20·9	34·9	49·2	31 20·84	+ 0·32	………	+32·48	3 31 53·64
	Sun 2 Limb···········	7·0	21·1	35·2	49·2	3·3	33 35·16	+ 0·32	………	+32·48	3 34 7·96
	α Aurigæ··············	22·8	41·8	0·8	20·0	39·0	4 0·84	+ 0·13	+32·64	+32·61	5 4 33·58
	···········*Microm.* ····	……	51·3	……	10·2	……					
	β Tauri ···············	51·5	6·7	21·8	36·8	52·0	15 21·76	+ 0·26	32·68	+32·63	5 15 54·65
	α Orionis··············	17·0	30·3	43·8	57·3	10·8	45 43·84	+ 0·37	32·58	+32·68	5 46 16·89
	Venus 1 Limb········	17·6	32 0	47·0	1·9	16·8	48 47·06	+ 0·28	………	+32·77	6 49 20·11
	Jupiter 1 Limb·······	……	16·0	……	44·8	……	59 30·40	+ 0·30	…… …	+32·79	7 0 3·49
	Jupiter 2 Limb·······	3·8	……	32·6	……	1·5	59 32·63	+ 0·30	………	+32·79	7 0 5·72
	α Canis Minoris·······	42·5	55·6	9·0	22·3	35·8	30 9·04	+ 0·38	32·90	+32·84	7 30 42·26
	β Geminorum··········	12·4	27·5	42·8	57·8	12·9	34 42·68	+ 0·26	32·80	+32·84	7 35 15 78
	α Ursæ Minor. S. P.···	……	30·0	37·0	43·5	……	59 36·70	+ 9·90	………	+33·33	13 0 19·93
	···········*Microm.* ····	……	33·5	……	40·0	……					
	ζ Ursæ Majoris········	0·3	24·0	47·8	11·4	35·0	16 47·70	+ 0·02	………	+33·35	13 17 21·07
	···········*Microm.* ····	……	35·9	……	59·5	……					
	Saturn 1 Limb Ring··	……	17·6	……	44·7	……	55 31·15	+ 0·45	· ………	+33·41	13 56 5·01
	Saturn 2 Limb Ring··	7·2	……	34·1	……	1·1	55 34·13	+ 0·45	…… …·	+33·41	13 56 7·99
	α Ursæ Minoris········	……	46·0	53·0	1·0	……	59 53·60	− 9·10	………	+34·41	1 0 18·91
	···········*Microm.* ····	……	50·0	……	57·5	……					
May 17	Sun 2 Limb···········	2·7	16·8	31·0	45·0	59·3	37 30·96	+ 0·31	………	+34·64	3 38 5·91
	Mercury 1 Limb······	35·7	50·5	5·0	19·7	34·6	50 5·10	+ 0·29	………	+34·75	4 50 40·14
	α Canis Majoris·······	51·2	5·1	19·0	32·8	46·7	37 18·96	+ 0·49	+34·86	+34·91	6 37 54·36
	Venus 1 Limb········	30·5	45·5	0·0	15·2	29·8	53 0·20	+ 0·28	………	+34·93	6 53 35·41
	Jupiter 1 Limb·······	46·6	……	15·5	……	44·4	0 15·50	+ 0·30	· ………	+34·94	7 0 50·74
	Jupiter 2 Limb·······	……	3·4	……	32·2	……	0 17·80	+ 0·30	………	+34·94	7 0 53·04
	α Canis Minoris·······	40·2	53·4	6·8	20·0	33·3	30 6·74	+ 0·38	35·19	+34·99	7 30 42·11
	β Geminorum ········	10·3	25·2	40·5	55·5	10·8	34 40·46	+ 0·26	35·01	+34·99	7 35 15·71
	β Leonis················	39·3	53·0	6·7	20·5	34·3	40 6·76	+ 0·34	35·20	+35·35	11 40 42·45
May 18	Sun 1 Limb···········	44·4	58·5	12·8	27·0	41·1	39 12·76	+ 0·31	………	+36·76	3 39 49·83
	Sun 2 Limb···········	59·2	13·3	27·4	41·7	55·9	41 27·50	+ 0·31	………	+36·76	3 42 4·57
	Mercury 1 Limb······	5·4	20·2	34·8	49·6	4·4	57 34·88	+ 0·29	………	+36·87	4 58 12·04
	α Aurigæ··············	18·0	37·1	56·3	15·4	34·3	3 56·22	+ 0·13	+37·27	+37·13	5 4 33·48 †
	β Tauri················	47·2	2·4	17·4	32·5	47·8	15 17·46	+ 0·26	36·98	+36·89	5 15 54·61
	α Orionis··············	12·5	25·6	39·4	52·5	6·2	45 39·24	+ 0·37	37·18	+37.19	5 46 16·80 †
	α Canis Majoris·······	49·1	3·0	16·5	30·6	44·4	37 16·72	+ 0·49	37·10	+37·27	6 37 54·48 †
	β Leonis················	37·2	50·8	4·6	18·4	32·2	40 4·64	+ 0·34	37·31	+37·48	11 40 42·46
	α Cassiopeæ S. P.······	47·4	11·3	34·8	58·4	21·9	30 34·71	+ 0·78	………	+37·56	12 31 13·05
	···········*Microm.* ····	……	22·9	……	46·3	……					
	α Ursæ Minor. S. P.···	……	28·5	35·5	42·5	……	59 35·50	+ 9·90	………	+37·61	13 0 23·01
	···········*Microm.* ····	……	33·0	……	38·5	……					
	α Virginis··············	29·9	43·2	56·8	10·4	24·0	15 56·86	+ 0·46	37·68	+37·64	13 16 34·96
	Saturn 1 Limb Ring··	30·7	……	57·5	……	24·7	54 57·63	+ 0·45	………	+37·70	13 55 35·78
	Saturn 2 Limb Ring··	……	47·3	……	14·2	……	55 0·75	+ 0·45	………	+37·70	13 55 38·90
	α Bootis ···············	6·0	20·2	34·4	48·5	2·7	7 34·36	+ 0·31	37·91	+37·99	14 8 12·66 †
	α^2 Libræ················	44·5	58·2	12·1	26·0	39·8	41 12·12	+ 0·48	38·02	+38·04	14 41 50·64 †
	α Pegasi················	……	42·5	56·4	10·0	23·7	55 56·29	+ 0·34	+39·03	+38·86	22 56 35·49 †
	α Andromedæ·········	……	0·4	……	30·5	45·7	59 15·48	+ 0·27	39·00	+38·96	23 59 54·71 †
	α Ursæ Minoris·······	……	40·0	47·5	54·0	……	59 47·30	− 9·10	………	+38·80	1 0 17·00
	···········*Microm.* ····	……	44·0	……	50·5	……					

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.		Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.		
		.	II.	III.	IV.	V.				observed.	interpolated.			
		s.	s.	s.	s.	s.	m.	s.	s.	s.	s.	h.	m.	s
May 19	Sun 1 Limb	40·8	55·0	9·2	23·3	37·4	43	9·14	+ 0·31	....	+39·07	3	43	48·52
	Sun 2 Limb	55·6	9·9	24·0	38·2	52·5	45	24·04	+ 0·31	....	+39·07	3	46	3·42
	α Aurigæ	16·0	34·7	54·1	13·0	32·2	3	54·00	+ 0·13	+39·49	+39·47	5	4	33·60 †
	β Tauri	45·0	0·2	15·4	30·4	45·6	15	15·32	+ 0·26	39·12	+39·21	5	15	54·79
	α Orionis	10·2	23·4	37·0	50·4	3·7	45	36·94	+ 0·37	39·48	+39·54	5	46	16·85 †
	α Canis Majoris	46·6	0·4	14·4	28·2	42·3	37	14·38	+ 0·49	39·43	+39·62	6	37	54·49 †
	Moon 1 Limb	57·8	12·8	28·0	43·2	58·4	55	28·04	+ 0·29	....	+39·38	6	56	7·71
	α Canis Minoris	35·7	49·2	2·4	15·6	29·1	30	2·40	+ 0·38	39·52	+39·44	7	30	42·22
	β Geminorum	5·9	20·8	36·0	51·2	6·3	34	36·04	+ 0·26	39·41	+39·44	7	35	15·74
	β Leonis	34·6	48·3	2·1	15·8	29·7	40	2·10	+ 0·34	39·84	+39·85	11	40	42·29
	α Cassiopeæ S. P.	45·3	9·0	32·7	55·8	19·7	30	32·46	+ 0·78	....	+39·93	12	31	13·17
	............*Microm.*	......	20·7	......	44·0	......								
	α Ursæ Minor. S. P.	......	23·5	29·5	37·5	......	59	29·70	+ 9·90	....	+39·98	13	0	19·58
	............*Microm.*	......	26·5	......	32·0	......								
	α Virginis	27·2	40·8	54·5	8·2	21·7	15	54·48	+ 0·46	40·06	+40·01	13	16	34·95
	Saturn 1 Limb Ring	......	27·6	......	54·5	......	54	41·05	+ 0·45	....	+40·08	13	55	21·58
	Saturn 2 Limb Ring	17·2	......	44·1	......	11·1	54	44·13	+ 0·45	....	+40·08	13	55	24·66
May 20	Sun 2 Limb	......	......	21·5	......	49·7	49	21·40	+ 0·31	....	+41·47	3	50	3·18
	Venus 1 Limb	54·6	9·4	24·2	38·9	53·8	5	24·18	+ 0·28	....	+41·80	7	6	6·26
	α Leonis	28·6	42·1	55·7	9·3	23·0	58	55·74	+ 0·35	+42·08	+42·09	9	59	38·18
	β Leonis	32·2	46·0	59·7	13·5	27·3	39	59·74	+ 0·34	42·19	+42·26	11	40	42·34
May 21	Sun 1 Limb	36·0	50·2	4·3	18·3	32·5	51	4·26	+ 0·31	....	+43·94	3	51	48·51
	Sun 2 Limb	50·8	5·1	19·3	33·5	47·7	53	19·28	+ 0·31	....	+43·94	3	54	3·53
	α Aurigæ	11·3	30·3	49·4	8·5	27·5	3	49·40	+ 0·13	44·10	+44·07	5	4	33·60
May 23	Sun 1 Limb	32·4	46·4	0·5	15·0	29·3	59	0·72	+ 0·31	....	+48·99	3	59	50·02
	Sun 2 Limb	47·8	1·9	16·2	30·4	44·6	1	16·18	+ 0·31	....	+48·99	4	2	5·48
	α Aurigæ	6·1	25·2	44·3	3·4	22·5	3	44·47	+ 0·13	+49·04	+49·11	5	4	33·71
	............*Microm.*	......	35·8	......	54·0	......								
	α Orionis	0·5	13·8	27·2	40·7	54·2	45	27·28	+ 0·37	49·15	+49·17	5	46	16·82
	Jupiter 1 Limb	......	38·0	......	7·0	......	4	52·50	+ 0·30	....	+49·32	7	5	42·12
	Jupiter 2 Limb	26·3	......	55·2	......	24·1	4	55·20	+ 0·30	....	+49·32	7	5	44·82
	Venus 1 Limb	52·8	7·6	22·3	37·1	51·8	17	22·32	+ 0·28	....	+49·34	7	18	11·94
	α Canis Minoris	25·7	39·0	52·3	5·7	19·3	29	52·40	+ 0·38	49·49	+49·36	7	30	42·14
	β Geminorum	55·8	10·8	26·1	41·2	56·3	34	26·04	+ 0·26	49·38	+49·37	7	35	15·67
	η Leonis	5·3	19·4	33·2	47·3	1·2	57	33·28	+ 0·32	....	+49·64	9	58	23·24
	γ Leonis	37·3	51·4	5·6	19·8	34·3	10	5·68	+ 0·31	....	+49·66	10	10	55·65
	Moon 1 Limb	40·2	54·5	8·5	22·6	36·8	25	8·52	+ 0·32	....	+49·68	10	25	58·52
	χ Leonis	17·0	30·2	43·8	57·2	10·8	55	43·80	+ 0·37	....	+49·74	10	56	33·91
	α Cassiopeæ S. P.	35·2	58·9	22·5	46·1	9·8	30	22·51	+ 0·78	....	+49·92	12	31	13·21
	............*Microm.*	......	10·9	......	34·2	......								
	α Ursæ Minor. S. P.	......	16·0	21·5	28·0	......	59	22·00	+ 9·89	....	+49·98	13	0	21·87
	............*Microm.*	......	19·5	......	25·5	......								
	ζ Ursæ Majoris	43·5	7·2	30·8	54·5	18·2	16	30·86	+ 0·02	....	+50·01	13	17	20·89
	....*Microm.*	......	19·1	......	42·7	......								
	Saturn 1 Limb Ring	......	......	......	......	3·3	53	36·37	+ 0·45	....	+50·08	13	54	26·90
	Saturn 2 Limb Ring	......	25·6	......	52·3	......	53	38·95	+ 0·45	....	+50·08	13	54	29·48
	α Bootis	54·0	8·1	22·2	......	......	7	22·26	+ 0·31	50·00	+50·10	14	8	12·67
	α Ursæ Minoris	......	34·0	41·0	47·5	......	59	40·90	− 9·09	....	+51·34	1	0	23·15
	............*Microm.*	......	38·0	......	43·5	......								
May 24	Sun 1 Limb	31·0	45·2	59·5	13·8	28·0	2	59·50	+ 0·31	....	+51·69	4	3	51·50
	Sun 2 Limb	46·3	0·8	15·3	29·3	43·8	5	15·10	+ 0·31	....	+51·69	4	6	7·10
	α Aurigæ	3·7	22·6	41·8	0·7	20·0	3	41·74	+ 0·13	+51·78	+51·80	5	4	33·67
	............*Microm.*	......	32·1	......	51·3	......								
	Mercury 1 Limb	36·4	51·3	6·0	21·0	35·7	38	6·08	+ 0·28	....	+51·86	5	38	58·22

Date.	OBJECT OBSERVED.	Wire. I.	Wire. II.	Wire. III.	Wire. IV.	Wire. V.	Reduction to Wire III.	Correction of Instrument.	Correction of Clock observed.	Correction of Clock interpolated.	Apparent Right Ascension observed.
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
May 24	α Canis Majoris········	34·2	48·0	1·8	15·7	29·7	37 1·88	+ 0·49	+ 51·90	+ 51·97	6 37 54·34
	Jupiter 1 Limb········	······	24·8	······	53·8	······	5 39·30	+ 0·30	··········	+ 52·02	7 6 31·62
	Jupiter 2 Limb········	12·9	······	41·7	······	10·8	5 41·80	+ 0·30	··········	+ 52·02	7 6 34·12
	Venus 1 Limb·········	45·8	0·4	15·3	30·0	44·6	21 15·22	+ 0·28	··········	+ 52·05	7 22 7·55
	α Canis Minoris ·······	23·0	36·3	49·8	2·9	16·5	29 49·70	+ 0·38	52·19	+ 52·06	7 30 42·14
	β Geminorum··········	53·2	8·1	23·3	38·5	53·7	34 23·36	+ 0·26	52·06	+ 52·07	7 35 15·69
	Moon 1 Limb··········	47·4	1·4	15·0	28·9	42·7	14 15·08	+ 0·38		+ 52·46	11 15 7·92
	γ Pegasi········ ···· ··	26·0	39·7	53·4	7·2	21·0	3 53·46	+ 0·34	+ 53·83	+ 53·80	0 4 47·60
	α Cassiopeæ············	32·0	55·6	19·3	42·9	6·6	30 19·26	+ 0·02	··········	+ 53·85	0 31 13·13
	············*Microm.* ····	······	7·4	······	31·0	······					
	α Ursæ Minoris ·······	27·0	32·5	39·5	47·0	55·0	59 40·11	− 9·09	··········	+ 53·91	1 0 24·93
	············*Microm.* ····	······	38·0	······	42·5	······					
May 25	Sun 1 Limb············	30·3	44·6	59·0	13·2	27·4	6 58·90	+ 0·31	··········	+ 54·23	4 7 53·44
	Sun 2 Limb············	46·3	0·7	14·8	29·2	43·4	9 14·88	+ 0·31	··········	+ 54·23	4 10 9·42
	α Aurigæ···············	1·0	20·0	39·2	58·0	17·3	3 39·14	+ 0·13	54·39	+ 54·33	5 4 33·60
	············*Microm.* ····	······	29·8	······	48·7	······					
	Mercury 1 Limb ······	32·8	47·5	2·3	17·0	31·8	44 2·28	+ 0·28	··········	+ 54·40	5 44 56·96
	α Canis Majoris········	31·3	45·4	59·2	13·2	27·0	36 59·22	+ 0·49	54·56	+ 54·50	6 37 54·21
	Jupiter 1 Limb········	57·9	······	26·8	······	55·7	6 26·80	+ 0·30	··········	+ 54·55	7 7 21·65
	Jupiter 2 Limb········	······	14·5	······	43·4	······	6 28·95	+ 0·30	··········	+ 54·55	7 7 23·80
	Venus 1 Limb·········	35·9	50·6	5·2	19·9	34·5	25 5·22	+ 0·28	··········	+ 54·58	7 26 0·08
	α Canis Minoris·······	20·7	33·8	47·1	0·5	14·0	29 47·22	+ 0·38	54·67	+ 54·59	7 30 42·19
	β Geminorum··········	50·7	5·6	21·0	36·0	51·2	34 20·90	+ 0·26	54·51	+ 54·59	7 35 15·75
	ν Virginis···············	4·5	17·8	31·0	44·4	58·0	36 31·14	+ 0·37	··········	+ 55·05	11 37 26·56
	β Leonis·················	19·5	33·3	47·0	0·8	14·7	39 47·06	+ 0·34	54·82	+ 55·05	11 40 42·45
	β Virginis···············	48·0	1·3	14·6	27·9	41·3	41 14·62	+ 0·40	··········	+ 55·06	11 42 10·08
	Moon 1 Limb··········	47·8	1·4	15·3	28·8	42·5	3 15·16	+ 0·41	··········	+ 55·10	12 4 10·67
	16 Virginis·············	40·2	53·4	6·7	20·2	33·4	11 6·78	+ 0·39	··········	+ 55·12	12 12 2·29
	γ Virginis···············	0·2	13·4	26·6	40·0	53·3	32 26·70	+ 0·41	··········	+ 55·15	12 33 22·26
	α Ursæ Minor. S.P.····	······	11·5	17·5	23·0	······	59 16·90	+ 9·89	··········	+ 55·21	13 0 22·00
	············*Microm.* ····	······	14·0	······	19·0	······					
	Saturn 1 Limb Ring··	······	51·4	······	18·5	······	53 4·95	+ 0·45	··········	+ 55·31	13 54 0·71
	Saturn 2 Limb Ring··	41·2	······	8·2	······	35·2	53 8·20	+ 0·45	··········	+ 55·31	13 54 3·96
	α Bootis ················	48·5	2·6	17·0	31·2	45·4	7 16·94	+ 0·31	55·32	+ 55·34	14 8 12·59
	α Ursæ Minoris ·······	······	30·5	38·5	43·0	······	59 37·20	− 9·09	··········	+ 56·57	1 0 24·68
	············*Microm.* ····	······	33·5	······	40·0	······					
May 26	Sun 1 Limb············	30·3	44·5	58·8	13·0	27·5	10 58·82	+ 0·31	··········	+ 56·93	4 11 56·06
	Sun 2 Limb············	46·2	0·5	14·8	29·1	43·5	13 14·82	+ 0·31	··········	+ 56·93	4 14 12·06
	α Aurigæ············ ··	58·3	17·2	36·2	55·4	14·3	3 36·34	+ 0·13	+ 57·19	+ 57·02	5 4 33·49
	············*Microm.* ····	······	27·0	······	46·0	······					
	α Orionis···············	52·6	5·7	19·5	32·7	46·3	45 19·36	+ 0·37	57·07	+ 57·10	5 46 16·83
	Mercury 1 Limb ······	13·9	28·6	43·5	58·4	13·3	49 43·54	+ 0·28	··········	+ 57·11	5 50 40·93
	α Canis Majoris········	29·0	42·8	56·7	10·5	24·3	36 56·66	+ 0·49	57·12	+ 57·20	6 37 54·35
	Jupiter 1 Limb········	······	59·6	······	28·7	······	7 14·15	+ 0·30	··········	+ 57·25	7 8 11·70
	Jupiter 2 Limb········	47·5	······	16·5	······	45·4	7 16·47	+ 0·30	··········	+ 57·25	7 8 14·02
	Venus 1 Limb·········	22·4	37·2	51·7	6·6	21·4	28 51·86	+ 0·29	··········	+ 57·30	7 29 49·45
	β Geminorum··········	48·0	3·0	18·2	33·3	48·5	34 18·20	+ 0·26	57·20	+ 57·31	7 35 15·77
	β Leonis·················	16·5	30·4	44·2	58·0	11·9	39 44·20	+ 0·34	57·67	+ 57·77	11 40 42·31
	16 Virginis·············	37·4	50·8	4·2	17·4	30·6	11 4·08	+ 0·39	··········	+ 57·84	12 12 2·31
	γ Virginis···············	57·3	10·6	23·9	37·2	50·5	32 23·90	+ 0·41	··········	+ 57·87	12 33 22·18
	Moon 1 Limb·· ·······	51·0	4·7	18·3	31·8	45·7	53 18·30	+ 0·45	··········	+ 57·92	12 54 16·67
	α Ursæ Minor. S.P.····	······	11·0	17·0	23·5	······	59 16·80	+ 9·89	··········	+ 57·93	13 0 24·62
	············*Microm.* ····	······	14·0	······	19·0	······					
	θ Virginis···············	4·0	17·3	30·5	44·0	57·3	0 30·62	+ 0·43	··········	+ 57·93	13 1 28·98
	α Virginis···············	9·5	22·8	36·4	50·0	3·5	15 36·44	+ 0·46	58·08	+ 57·95	13 16 34·85
	Saturn 1 Limb Ring··	22·8	······	49·8	······	16·8	52 49·80	+ 0·45	··········	+ 58·03	13 53 48·28

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
May 26	Saturn 2 Limb Ring	......	39·2	......	6·2	......	52 52·70	+ 0·45	....	+58·03	13 53 51·18
	α Ursæ Minoris	......	30·0	35·5	42·0	......	59 35·90	− 9·09	....	+59·30	1 0 26·11
	Microm.	......	33·0	......	38·5	......					
May 27	Sun 1 Limb	30·4	44·7	59·2	13·5	27·8	14 59·12	+ 0·30	....	+59·68	4 15 59·10
	Sun 2 Limb	46·6	1·0	15·3	29·5	44·0	17 15·28	+ 0·30	....	+59·68	4 18 15·26
	(a) α Aurigæ	55·5	14·5	33·6	52·8	12·0	4 33·67	+ 0·13	− 0·13	− 0·23	5 4 33·57
	Microm.	......	24·0	......	43·3	......					
	α Orionis	50·0	3·2	16·5	30·0	43·5	46 16·64	+ 0·37	0·21	− 0·15	5 46 16·86
	Mercury 1 Limb	39·4	53·8	8·8	23·7	38·6	56 8·86	+ 0·28	....	− 0·13	5 56 9·01
	α Canis Majoris	26·2	40·0	53·6	7·7	21·4	37 53·78	+ 0·49	0·01	− 0·05	6 37 54·22
	Jupiter 1 Limb	32·8	......	1·8	......	30·7	9 1·77	+ 0·30	....	+ 0·01	7 9 2·08
	Jupiter 2 Limb	......	49·5	......	18·5	......	9 4·00	+ 0·30	....	+ 0·01	7 9 4·31
	α Canis Minoris	15·2	28·4	41·7	55·2	8·5	30 41·80	+ 0·38	+ 0·07	+ 0·06	7 30 42·24
	Venus 1 Limb	5·7	20·4	35·1	49·8	4·5	33 35·10	+ 0·29	....	+ 0·06	7 33 35·45
	β Geminorum	45·3	0·0	15·4	30·5	45·6	35 15·36	+ 0·26	0·04	+ 0·06	7 35 15·68
	α Ursæ Minor. S. P.	......	9·5	15·5	20·5	......	0 15·00	+ 9·89	....	+ 0·63	13 0 25·52
	Microm.	......	12·5	......	17·5	......					
	θ Virginis	1·5	14·7	28·0	41·5	54·6	1 28·06	+ 0·43	....	+ 0·63	13 1 29·12
	α Virginis	7·0	20·2	33·8	47·3	1·0	16 33·86	+ 0·46	0·65	+ 0·65	13 16 34·97
	Moon 1 Limb	18·2	32·0	45·8	59·4	13·4	46 45·76	+ 0·48	....	+ 0·70	13 46 46·94
	Saturn 1 Limb Ring	......	21·2	......	48·3	......	53 34·75	+ 0·45	....	+ 0·71	13 53 35·91
	Saturn 2 Limb Ring	11·1	......	37·9	......	4·8	53 37·93	+ 0·45	....	+ 0·71	13 53 39·09
	ϰ Virginis	43·0	56·3	9·8	23·3	36·9	4 9·86	+ 0·46	....	+ 0·74	14 4 11·06
	λ Virginis	48·1	2·0	15·4	29·0	42·7	10 15·44	+ 0·47	....	+ 0·75	14 10 16·66
	α Ursæ Minoris	......	28·0	34·5	40·5	......	0 34·30	− 9·09	....	+ 1·88	1 0 27·09
	Microm.	......	30·5	......	37·5	......					
May 28	Sun 1 Limb	31·6	45·6	0·3	14·6	28·8	20 0·18	+ 0·30	....	+ 2·22	4 20 2·70
	Sun 2 Limb	47·7	2·0	16·2	30·6	45·0	22 16·30	+ 0·30	....	+ 2·22	4 22 18·82
	α Aurigæ	53·2	12·2	31·2	50·3	9·4	4 31·24	+ 0·13	+ 2·30	+ 2·30	5 4 33·67
	Microm.	... ..	21·7	......	40·7	......					
	α Orionis	47·3	0·7	14·0	27·5	40·8	46 14·06	+ 0·37	2·38	+ 2·37	5 46 16·80
	Mercury 1 Limb	49·3	3·9	18·5	33·3	48·2	1 18·64	+ 0·28	....	+ 2·40	6 1 21·32
	α Canis Majoris	23·6	37·7	51·3	5·2	19·1	37 51·38	+ 0·49	2·39	+ 2·46	6 37 54·33
	Jupiter 1 Limb	......	35·7	.. ..	4·6	......	9 50·15	+ 0·30	....	+ 2·51	7 9 52·96
	Jupiter 2 Limb	23·4	......	52·3	......	21·3	9 52·33	+ 0·30	....	+ 2·51	7 9 55·14
	α Canis Minoris	12·6	25·8	39·2	52·5	6·2	30 39·26	+ 0·38	2·60	+ 2·55	7 30 42·19
	β Geminorum	42·8	57·8	12·7	27·8	43·0	35 12·82	+ 0·26	2·57	+ 2·56	7 35 15·64
	Venus 1 Limb	45·3	0·0	14·8	29·3	43·9	37 14·66	+ 0·29	....	+ 2·56	7 37 17·51
	α Ursæ Minor. S. P.	......	6·5	12·0	19·0	......	0 12·20	+ 9·89	....	+ 3·13	13 0 25·22
	Microm.	......	10·0	......	14·0	......					
	Saturn 1 Limb Ring	53·4	......	20·3	......	47·3	53 20·33	+ 0·45	....	+ 3·22	13 53 24·00
	Saturn 2 Limb Ring	......	9·7	......	36·7	......	53 23·20	+ 0·45	....	+ 3·22	13 53 26·87
	ϰ Virginis	40·4	53·7	7·3	20·8	34·5	4 7·34	+ 0·46	....	+ 3·24	14 4 11·04
	λ Virginis	45·6	58·9	12·9	26·3	39·8	10 12·70	+ 0·47	....	+ 3·25	14 10 16·42
	Moon 1 Limb	32·0	46·3	0·5	14·8	29·2	43 0·56	+ 0·51	....	+ 3·30	14 43 4·37
	ι^1 Libræ	23·0	37·0	51·2	5·2	19·3	2 51·14	+ 0·50	....	+ 3·33	15 2 54·97
	γ^1 Libræ	52·1	5·8	19·7	33·3	47·1	26 19·60	+ 0·48	....	+ 3·38	15 26 23·46
May 29	(b) α Coronæ borealis	52·6	7·5	22·5	37·4	52·3	27 22·46	+ 0·27	+23·91	+23·93	15 27 46·66
	α Serpentis	22·2	35·6	49·1	2·6	15·9	35 49·08	+ 0·38	23·96	+23·95	15 36 13·41
May 30	Sun 1 Limb	17·3	31·5	45·8	0·2	14·5	27 45·86	+ 0·30	....	+24·75	4 28 10·91
	Sun 2 Limb	33·4	47·9	2·3	16·8	31·0	30 2·28	+ 0·30	....	+24·75	4 30 27·33
	α Aurigæ	30·7	49·5	8·8	27·7	46·7	4 8·70	+ 0·13	+24·87	+24·78	5 4 33·61
	Microm.	......	59·3	......	18·2	......					
	α Orionis	24·8	38·2	51·7	5·1	18·5	45 51·66	+ 0·37	24·78	+24·83	5 46 16·86

(a) Clock advanced one minute.

(b) The pendulum was shortened.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
May 30	Mercury 1 Limb……	2·3	17·2	31·8	46·7	1·5	10 31·90	+ 0·28	………	+24·86	6 10 57·04
	α Canis Minoris…….	50·1	3·3	16·8	30·2	43·6	30 16·80	+ 0·38	+25·05	+24·94	7 30 42·12
	β Geminorum……….	20·3	35·3	50·4	5·5	20·7	34 50·44	+ 0·26	24·94	+24·95	7 35 15·65
	Venus 1 Limb………	36·7	50·8	5·9	20·4	35·0	44 5·76	+ 0·29	………	+24·95	7 44 31·00
	α Bootis……………	18·8	32·8	47·0	1·2	15·3	7 47·02	+ 0·31	25·23	+25·22	14 8 12·55
May 31	Sun 1 Limb…………	20·9	35·2	49·7	4·0	18·4	31 49·64	+ 0·30	………	+25·81	4 32 15·75
	Sun 2 Limb…………	37·3	51·8	6·3	20·5	34·8	34 6·14	+ 0·30	………	+25·81	4 34 32·25
	α Aurigæ……………	29·6	48·5	7·8	26·8	45·9	4 7·73	+ 0·13	+25·85	+25·83	5 4 33·69
	…………*Microm.* ….	……	58·3	……	17·2	……					
	α Orionis……………	23·8	37·2	50·7	4·2	17·5	45 50·68	+ 0·37	25·77	+25·86	5 46 16·91
	Mercury 1 Limb……	23·9	38·6	53·4	8·0	22·7	14 53·32	+ 0·28	………	+25·88	6 15 19·48
	α Canis Majoris …….	0·2	14·0	27·8	41·7	55·6	37 27·86	+ 0·49	25·90	+25·89	6 37 54·24
	Jupiter 1 Limb…….	31·0	……	59·9	……	28·8	11 59·90	+ 0·30	………	+25·92	7 12 26·12
	Jupiter 2 Limb…….	……	48·0	……	16·8	……	12 2·40	+ 0·30	………	+25·92	7 12 28·62
	α Canis Minoris…….	49·1	2·5	15·8	29·1	42·5	30 15·80	+ 0·38	26·05	+25·93	7 30 42·11
	β Geminorum……….	19·3	34·3	49·4	4·6	19·8	34 49·48	+ 0·26	25·90	+25·94	7 35 15·68
	Venus 1 Limb………	6·4	21·2	35·8	50·4	4·8	47 35·72	+ 0·29	………	+25·94	7 48 1·95
	α Ursæ Minor. S.P.‥	……	45·5	52·5	57·5	……	59 51·80	+ 9·89	………	+26·16	13 0 27·85
	…………*Microm.* ….	……	49·5	……	54·5	……					
	ζ Ursæ Majoris…….	7·2	30·8	54·4	18·3	42·0	16 54·57	+ 0·02	………	+26·18	13 17 20·77
	…………*Microm.* ….	……	42·8	……	6·5	……					
	Saturn 1 Limb Ring‥	……	9·4	……	36·4	……	52 22·90	+ 0·45	………	+26·20	13 52 49·55
	Saturn 2 Limb Ring‥	59·0	……	26·1	……	52·8	52 25·97	+ 0·45	………	+26·20	13 52 52·62
June 1	Sun 1 Limb…………	25·0	39·4	54·0	8·3	22·7	35 53·88	+ 0·27	………	+26·82	4 36 20·97
	Sun 2 Limb…………	41·8	56·1	10·5	25·0	39·4	38 10·56	+ 0·27	………	+26·82	4 38 37·65
	α Aurigæ……………	28·6	47·6	6·7	25·8	45·0	4 6·76	+ 0·13	+26·84	+26·84	……………
	…………*Microm.* ….	……	57·3	……	16·3	……					
	α Ursæ Minor. S.P.…	……	43·0	……	……	……	59 50·00	+ 8·76	………	+27·19	……………
	…………*Microm.* ….	……	48·5	……	……	……					
June 2	Sun 1 Limb…………	29·7	44·0	58·4	12·9	27·3	39 58·46	+ 0·27	………	+27·89	4 40 26·62
	Sun 2 Limb…………	46·4	0·8	15·2	29·6	44·0	42 15·20	+ 0·27	………	+27·89	4 42 43·36
	α Leonis……………	42·4	55·8	9·7	23·2	36·8	59 9·58	+ 0·32	+28·13	+28·13	……………
June 3	Sun 1 Limb…………	34·7	……	……	……	……	44 3·53	+ 0·27	………	+28·83	4 44 32·63
	Sun 2 Limb…………	51·6	5·9	20·5	34·9	49·3	46 20·44	+ 0·27	………	+28·83	4 46 49·54
June 6	α Ursæ Minor. S.P.…	……	……	51·5	58·0	……	59 51·83	+ 8·76	………	+31·83	……………
	…………*Microm.* ….	……	……	……	55·0	……					
	α Virginis……………	35·6	49·2	2·7	16·3	29·7	16 2·70	+ 0·41	+31·81	+31·85	13 16 34·96
	Saturn 1 Limb Ring‥	49·7	……	16·5	……	43·4	51 16·53	+ 0·41	………	+31·87	13 51 48·81
	Saturn 2 Limb Ring‥	……	5·7	……	32·7	……	51 19·20	+ 0·41	………	+31·87	13 51 51·48
	α Bootis……………	12·2	26·1	40·2	54·5	8·7	7 40·34	+ 0·28	31·91	+31·87	14 8 12·49
June 7	Sun 1 Limb…………	58·8	13·3	27·5	42·3	56·8	0 27·74	+ 0·27	………	+32·36	5 1 0·37
	Sun 2 Limb…………	16·2	30·5	45·2	59·6	14·2	2 45·14	+ 0·27	………	+32·36	5 3 17·77
	α Orionis……………	17·3	30·7	44·2	57·6	11·0	45 44·16	+ 0·34	+32·37	+32·38	5 46 16·88
	α Coronæ borealis ….	43·9	58·9	14·0	28·8	43·6	27 13·84	+ 0·25	32·56	+32·73	15 27 46·82
	α Serpentis…………	13·5	26·9	40·2	53·7	7·1	35 40·28	+ 0·34	32·84	+32·73	15 36 13·35
June 8	Sun 1 Limb…………	5·9	20·3	34·8	49·3	3·8	4 34·82	+ 0·27	………	+33·32	5 5 8·41
	Sun 2 Limb…………	23·3	37·6	52·0	6·5	21·0	6 52·08	+ 0·27	………	+33·32	5 7 25·67
	α Canis Majoris …….	52·7	6·7	20·5	34·5	48·3	37 20·54	+ 0·44	+33·27	+33·39	6 37 54·37
	Mercury 1 Limb……	25·8	40·3	54·8	9·3	23·7	38 54·78	+ 0·27	………	+33·39	6 39 28·44
	Venus 1 Limb………	34·5	48·8	3·3	17·8	32·2	13 3·32	+ 0·27	………	+33·46	8 13 37·05
	β Leonis……………	40·6	54·3	8·3	22·1	35·8	40 8·22	+ 0·30	33·56	+33·60	11 40 42·12

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
June 8	α Ursæ Minor. S. P.	……	46·5	53·0	59·5	……	59 52·90	+ 8·76	………	+33·66	…… ……
	………… *Microm.*	……	50·0	……	56·0	……					
	α Virginis	33·6	47·2	0·8	14·2	27·8	16 0·72	+ 0·41	+33·78	+33·66	13 16 34·79
	Saturn 1 Limb Ring	……	43·2	……	10·2	……	50 56·70	+ 0·41	………	+33·69	13 51 30·80
	Saturn 2 Limb Ring	32·6	……	59·8	……	26·5	50 59·63	+ 0·41	………	+33·69	13 51 33·73
	α Bootis	10·3	24·3	38·3	52·5	6·7	7 38·42	+ 0·28	33·82	+33·70	14 8 12·40
	α Coronæ borealis	42·8	57·8	12·7	27·7	42·5	27 12·70	+ 0·25	33·70	+33·74	15 27 46·69
June 9	Saturn 1 Limb Ring	20·8	……	47·7	……	14·7	50 47·73	+ 0·41	………	+34·51	13 51 22·65
	Saturn 2 Limb Ring	……	36·8	……	3·8	……	50 50·30	+ 0·41	………	+34·51	13 51 25·22
	α Bootis	9·5	23·5	37·6	51·8	6·2	7 37·72	+ 0·28	+34·52	+34·52	……………
June 10	Sun 1 Limb	20·6	34·9	49·6	4·1	18·6	12 49·56	+ 0·27	………	+34·80	5 13 24·63
	Sun 2 Limb	38·0	52·4	7·0	21·6	36·1	15 7·02	+ 0·27	………	+34·80	5 15 42·09
	β Geminorum	10·3	25·3	40·5	55·7	10·9	34 40·54	+ 0·24	+34·84	+34·84	……………
	Venus 1 Limb	9·9	24·3	38·8	53·2	7·6	18 38·76	+ 0·27	………	+34·86	8 19 13·89
	α Ursæ Minor. S. P.	……	……	……	58·5	5·0	59 52·84	+ 8·76	………	+35·01	……………
June 11	α Bootis	8·2	22·3	36·4	50·6	4·7	7 36·44	+ 0·28	+35·79	+35·79	……………
	α Aurigæ	19·4	38·4	57·3	16·6	35·6	3 57·51	+ 0·13	+36·26	+36·23	5 4 33·87
	………… *Microm.*	……	48·2	……	7·1	……					
June 12	Sun 1 Limb	36·7	51·2	5·8	20·2	34·8	21 5·74	+ 0·27	………	+36·24	5 21 42·25
	Sun 2 Limb	54·4	8·8	23·3	37·8	52·3	23 23·32	+ 0·27	………	+36·24	5 23 59·83
	α Orionis	13·6	27·1	40·5	53·8	7·4	45 40·48	+ 0·34	36·09	+36·25	5 46 17·07
	α Ursæ Minor. S. P.	……	46·5	52·0	59·0	……	59 52·20	+ 8·76	………	+36·50	……………
	………… *Microm.*	……	49·0	……	55·0	……					
	α Virginis	31·0	44·5	57·9	11·5	24·9	15 57·96	+ 0·41	36·51	+36·51	13 16 34·88
	Saturn 1 Limb Ring	……	8·8	……	35·8	……	50 22·30	+ 0·41	………	+36·54	13 50 59·25
	Saturn 2 Limb Ring	58·2	……	25·2	……	52·2	50 25·20	+ 0·41	………	+36·54	13 51 2·15
	α Bootis	7·3	21·4	35·7	49·8	4·0	7 35·64	+ 0·28	36·58	+36·55	14 8 12·47
June 14	Sun 1 Limb	53·1	7·5	22·0	36·5	51·1	29 22·04	+ 0·17	………	+38·18	5 30 0·39
	Sun 2 Limb	10·5	25·1	39·7	54·3	8·8	31 39·68	+ 0·17	………	+38·18	5 32 18·03
	α Herculis	5·9	19·6	33·5	47·2	0·9	6 33·42	+ 0·19	+38·66	+38·66	17 7 12·27
	α Ophiuchi	15·6	28·8	42·7	56·2	9·9	26 42·64	+ 0·20	38·48	+38·67	17 27 21·51
	α Aurigæ	16·4	35·5	54·5	13·6	32·6	3 54·54	+ 0·08	39·34	+39·19	5 4 33·81
	………… *Microm.*	……	45·0	……	4·2	……					
June 15	Sun 1 Limb	1·2	15·8	30·2	44·7	59·5	33 30·28	+ 0·17	………	+39·21	5 34 9·66
	Sun 2 Limb	18·6	33·3	47·9	2·5	17·2	35 47·90	+ 0·17	………	+39·21	5 36 27·28
	Venus 1 Limb	33·8	48·2	2·5	16·7	30·8	31 2·40	+ 0·17	………	+39·35	8 31 41·92
	α Ursæ Minor. S. P.	……	49·0	56·0	……	……	59 55·27	+ 5·33	………	+39·56	……………
	………… *Microm.*	……	52·5	……	……	……					
	α Virginis	27·9	41·7	55·0	8·5	22·1	15 55·04	+ 0·26	+39·56	+39·57	13 16 34·87
	Saturn 1 Limb Ring	32·5	……	59·4	……	26·4	49 59·43	+ 0·25	………	+39·59	13 50 39·27
	Saturn 2 Limb Ring	……	48·5	……	15·5	……	50 2·00	+ 0·25	………	+39·59	13 50 41·84
	α Bootis	4·4	18·2	32·5	46·8	1·0	7 32·58	+ 0·18	39·72	+39·61	14 8 12·37
	α^2 Libræ	43·2	56·9	10·6	24·5	38·2	41 10·68	+ 0·27	39·70	+39·63	14 41 50·58
	α Coronæ borealis	37·2	51·9	7·0	21·8	36·5	27 6·88	+ 0·15	39·60	+39·65	15 27 46·68
	α Serpentis	6·9	20·2	33·6	47·2	0·5	35 33·68	+ 0·21	39·59	+39·66	15 36 13·55
June 16	Sun 1 Limb	9·8	24·4	38·8	53·4	8·0	37 38·88	+ 0·17	………	+40·10	5 38 19·15
	Sun 2 Limb	27·7	42·1	56·6	11·2	25·7	39 56·66	+ 0·17	………	+40·10	5 40 36·93
	α Canis Majoris	46·1	59·8	13·7	27·6	41·6	37 13·76	+ 0·27	+40·24	+40·13	6 37 54·16
	α Herculis	4·2	18·0	31·7	45·4	59·3	6 31·72	+ 0·19	40·38	+40·51	17 7 12·42
	α Ophiuchi	13·5	27·1	40·6	54·4	8·0	26 40·72	+ 0·20	40·42	+40·52	17 27 21·44

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
June 17	Sun 1 Limb	18·5	33·0	47·4	2·0	16·5	41 47·48	+ 0·17	....	+41·08	5 42 28·73
	Sun 2 Limb	36·0	50·5	5·3	19·8	34·3	44 5·18	+ 0·17	....	+41·08	5 44 46·43
	α Ursæ Minor. S.P.	......	......	54·5	1·0	6·0	59 54·72	+ 5·33	....	+41·42	....
	Microm.	......	......	......	57·5	......					
	α Bootis	2·6	16·5	30·7	45·0	59·2	7 30·80	+ 0·18	+41·48	+41·47	14 8 12·45
	α² Libræ	41·2	54·8	8·8	22·6	36·3	41 8·74	+ 0·27	41·64	+41·50	14 41 50 51
	α Persei S. P.	15·4	35·8	56·1	16·8	36·8	11 56·19	+ 0·38	....	+41·52	15 12 38·09
	Microm.	......	46·1	......	6·3	......					
	α Coronæ borealis	35·0	49·8	4·8	20·0	34·7	27 4·86	+ 0·15	41·62	+41·53	15 27 46·54
	α Serpentis	5·3	18·4	31·8	45·4	59·0	35 31·98	+ 0·21	41·29	+41·53	15 36 13·72
June 18	Venus 1 Limb	48·6	2·8	17·1	31·3	45·5	37 17·06	+ 0·18	....	+42·23	8 37 59·47
June 20	Sun 1 Limb	44·3	58·8	13·2	27·8	42·3	54 13·28	+ 0·17	....	+44·08	5 54 57·53
	Sun 2 Limb	2·2	16·7	31·1	45·7	0·5	56 31·24	+ 0·17	....	+44·08	5 57 15·49
	α Canis Majoris	42·3	56·0	9·8	23·9	37·7	37 9·94	+ 0·27	+44·08	+44·11	6 37 54·32
	α Leonis	26·3	39·8	53·5	7·2	20·8	58 53·52	+ 0·20	44·17	+44·25	9 59 37·97
	Moon 1 Limb	53·6	7·3	21·4	35·0	49·1	56 21·28	+ 0·21	....	+44·29	10 57 5·78
	α Ursæ Minor. S. P.	......	46·5	53·0	59·0	......	59 52·80	+ 5·33	....	+44·37	....
	Microm.	......	50·5	......	55·5	......					
	α Virginis	23·1	36·5	50·2	3·8	17·3	15 50·18	+ 0·26	44·38	+44·37	13 16 34·81
	Saturn 1 Limb Ring	.... .	14·1	......	41·3	......	49 27·70	+ 0·25	....	+44·40	13 50 12·35
	Saturn 2 Limb Ring	4·0	......	30·8	......	57·5	49 30·77	+ 0·25	....	+44·40	13 50 15·42
	α Bootis	59·5	13·6	27·8	42·1	56·2	7 27·84	+ 0·18	44·42	+44·41	14 8 12·43
	α² Libræ	38·4	52·0	5·8	19·6	33·4	41 5·84	+ 0·27	44·53	+44·43	14 41 50·54
June 22	Saturn 1 Limb Ring	51·5	......	18·4	......	45·2	49 18·37	+ 0·25	....	+46·11	13 50 4·73
	Saturn 2 Limb Ring	......	7·4	......	34·4	......	49 20·90	+ 0·25	....	+46·11	13 50 7·26
	α Bootis	57·8	11·8	26·2	40·2	54·4	7 26·08	+ 0·18	+46·16	+46·12	14 8 12·38
	α² Libræ	36·5	50·3	4·0	17·8	31·5	41 4·02	+ 0·27	46·34	+46·14	14 41 50·43
	β Ursæ Minoris	52·2	43·2	34·2	25·2	16·1	50 34·20	− 0·30	....	+46·15	14 51 20·05
	Microm.	......	9·0	......	59·5	......					
	α Persei S. P.	10·8	31·3	51·8	12·2	32·4	11 51·71	+ 0·38	....	+46·16	15 12 38·25
	Microm.	......	41·5	......	2·0	......					
	α Coronæ borealis	30·2	45·2	0·2	15·2	30·2	27 0·20	+ 0·15	46·25	+46·17	15 27 46·52
	α Herculis	58·6	12·4	26·2	39·8	53·5	6 26·10	+ 0·19	46·03	+46·24	17 7 12·53
	α Ophiuchi	7·8	21·4	35·1	48·7	2·3	26 35·06	+ 0·20	46·13	+46·25	17 27 21·51
June 23	Sun 1 Limb	10·3	24·8	39·3	53·8	8·4	6 39·32	+ 0·17	....	+46·79	6 7 26·28
	Sun 2 Limb	28·0	42·6	57·1	11·5	26·2	8 57·08	+ 0·17	....	+46·79	6 9 44·04
	β Geminorum	58·6	13·7	28·8	44·0	59·0	34 28·82	+ 0·15	+46·69	+46·85	7 35 15·82
	Venus 1 Limb	57·8	11·7	25·7	39·7	53·6	45 25·70	+ 0·18	....	+46·90	8 46 12·78
	α Virginis	20·4	33·8	47·4	1·2	14·5	15 47·46	+ 0·26	47·08	+47·09	13 16 34·81
	Moon 1 Limb	25·8	39·6	53·3	6·9	20·8	21 53·28	+ 0·26	....	+47·09	13 22 40·63
	α Bootis	57·0	10·8	25·1	39·2	53·4	7 25·10	+ 0·18	47·13	+47·12	14 8 12·40
	α² Libræ	35·4	49·4	3·3	17·1	30·8	41 3·20	+ 0·27	47·15	+47·14	14 41 50·61
	β Ursæ Minoris	52·0	42·2	33·1	24·0	15·2	50 33·27	− 0·30	....	+47·14	14 51 20·11
	Microm.	......	7·6	......	58·8	......					
	α Persei S.P.	10·0	30·5	50·8	11·0	31·5	11 50·80	+ 0·38	....	+47·16	15 12 38·34
	Microm.	. ....	40·8	.. ...	1·0	......					
	α Coronæ borealis	29·0	44·0	59·3	14·1	29·0	26 59·08	+ 0·15	47·37	+47·16	15 27 46·39
June 24	Sun 1 Limb	18·8	33·4	48·0	2·5	17·0	10 47·94	+ 0·17	....	+47·69	6 11 35·80
	Sun 2 Limb	36·5	51·0	5·6	20·2	34·7	13 5·60	+ 0·17	....	+47·69	6 13 53·46
	β Leonis	26·3	40·1	53·9	7·7	21·4	39 53·88	+ 0·19	+47·86	+47·88	11 40 41·95
	α Ursæ Minor. S.P.	......	47·0	52·5	58·0	......	59 52·30	+ 5·33	....	+47·93	....
	Microm.	......	50·5	......	54·0	......					
	α Virginis	19·7	33·0	46·4	0·2	13·5	15 46·56	+ 0·26	47·97	+47·93	13 16 34·75

Date.	OBJECT OBSERVED.	Wire.					Reduction to Wire III.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
June 24	α Bootis	56·0	10·2	24·3	38·5	52·5	7 24·30	+ 0·18	+ 47·93	+47·96	14 8 12·44
	α^2 Libræ	34·8	48·5	2·3	16·1	30·0	41 2·34	+ 0·27	48·01	+47·98	14 41 50·59
June 25	Sun 1 Limb	27·2	41·8	56·4	10·8	25·3	14 56·30	+ 0·17	………	+48·53	6 15 45·00
	Venus 1 Limb	21·2	35·3	49·4	3·4	17·3	47 49·32	+ 0·18	………	+48·62	8 48 38·12
	α Leonis	21·7	35·4	49·1	2·7	16·4	58 49·06	+ 0·20	+48·60	+48·67	9 59 37·93
	α Ursæ Minor. S.P.	……	46·5	51·5	57·5	……	59 51·40	+ 5·33	………	+48·77	……… ……
	Microm.	……	49·0	……	53·0	……					
	α Virginis	18·7	32·1	45·7	59·3	12·8	15 45·72	+ 0·26	48·80	+48·78	13 16 34·76
	α Bootis	55·3	9·3	23·4	37·6	51·8	7 23·48	+ 0·18	48·74	+48·81	14 8 12·47
	α^2 Libræ	33·5	47·3	1·3	15·3	29·1	41 1·30	+ 0·27	49·04	+48·84	14 41 50·41
	ι^1 Libræ	37·3	51·5	5·8	20·0	34·1	2 5·74	+ 0·28	………	+48·85	15 2 54·87
	Moon 1 Limb	22·8	37·3	51·8	6·4	20·8	11 51·82	+ 0·29	………	+48·86	15 12 40·97
	α Coronæ borealis	27·7	42·7	57·7	12·7	27·6	26 57·68	+ 0·15	48·75	+48·87	15 27 46·70
	η Libræ	36·5	50·3	4·0	17·8	31·6	34 4·04	+ 0·27	………	+48·87	15 34 53·18
	θ Libræ	14·8	28·4	42·3	56·2	10·2	43 42·38	+ 0·27	………	+48·88	15 44 31·53
June 26	α Coronæ borealis	26·6	41·5	56·5	11·5	26·4	26 56·50	+ 0·23	+49·85	+49·84	15 27 46·57
	α Serpentis	56·6	10·0	23·3	36·6	50·1	35 23·32	+ 0·31	49·84	+49·84	15 36 13·47
	θ Libræ	13·8	27·5	41·4	55·2	9·2	43 41·42	+ 0·40	………	+49·85	15 44 31·67
June 27	Sun 2 Limb	1·0	15·6	30·1	44·5	58·9	25 30·02	+ 0·25	………	+50·54	6 26 20·81
June 28	Sun 1 Limb	50·9	5·4	20·0	34·4	49·0	27 19·94	+ 0·25	………	+51·67	6 28 11·86
	Sun 2 Limb	8·6	22·9	37·5	52·0	6·6	29 37·52	+ 0·25	………	+51·67	6 30 29·44
	α Leonis	18·4	32·0	45·8	59·4	13·1	58 45·74	+ 0·29	+51·82	+51·84	9 59 37·87
	α Ursæ Minor. S.P.	……	45·0	52·0	58·5	……	59 52·00	+ 8·00	………	+51·98	13 0 51·98
	Microm.	……	49·0	……	56·0	……					
	α Virginis	15·4	28·8	42·2	55·8	9·4	15 42·32	+ 0·38	52·06	+51·99	13 16 34·69
	α Bootis	51·8	5·8	20·1	34·3	48·5	7 20·10	+ 0·26	52·01	+52·03	14 8 12·39
	α^2 Libræ	30·5	44·3	58·1	12·0	25·8	40 58·14	+ 0·40	52·05	+52·06	14 41 50·60
	β Ursæ Minoris	46·7	37·0	28·0	18·7	9·9	50 28·10	− 0·44	………	+52·06	14 51 19·72
	Microm.	……	3·0	……	53·4	……					
	α Persei S.P.	5·3	25·7	46·0	6·4	27·0	11 46·07	+ 0·57	………	+52·08	15 12 38·72
	Microm.	……	35·8	……	56·3	……					
	α Coronæ borealis	24·3	39·3	54·2	9·3	24·3	26 54·28	+ 0·23	52·06	+52·09	15 27 46·60
	μ^1 Sagittarii	39·0	52·9	7·4	21·5	35·8	3 7·32	+ 0·43	………	+52·22	18 3 59·97
	δ Ursæ Minoris	……	59·5	43·0	26·0	……	24 42·44	− 3·19	………	+52·24	18 25 31·49
	Microm.	……	50·5	……	33·0	……					
	(*a*) Moon 1 Limb	22·8	38·0	53·7	9·4	25·0	33 53·78	+ 0·48	………	+52·25	18 34 46·51
	Moon 2 Limb	0·5	16·3	32·0	47·4	2·9	36 31·82	+ 0·48	………	+52·25	18 37 24·55
	τ Sagittarii	21·3	36·2	51·5	6·5	21·7	55 51·44	+ 0·46	………	+52·26	18 56 44·16
	52 Sagittarii	24·0	38·3	53·3	8·1	22·5	25 53·24	+ 0·44	………	+52·29	19 26 45·97
June 29	Sun 1 Limb	……	……	……	42·0	56·5	31 27·48	+ 0·25	………	+52·83	6 32 20·56
	Sun 2 Limb	16·1	30·5	45·1	59·4	14·2	33 45·06	+ 0·25	………	+52·83	6 34 38·14
	α Ursæ Minor. S.P.	……	44·5	51·0	57·5	……	59 50·80	+ 8·00	………	+53·14	13 0 51·94
	Microm.	……	48·0	……	53·5	……					
	α Bootis	50·7	4·8	19·0	33·2	47·4	7 19·02	+ 0·26	+53·08	+53·19	14 8 12·47
	α^2 Libræ	29·4	43·0	56·8	10·8	24·5	40 56·90	+ 0·40	53·29	+53·22	14 41 50·52
	β Ursæ Minoris	45·4	36·0	26·6	17·4	8·2	50 26·76	− 0·44	………	+53·23	14 51 19·55
	Microm.	……	1·5	……	52·2	……					
	α Persei S.P.	4·2	24·6	44·8	5·5	25·7	11 44·91	+ 0·57	………	+53·25	15 12 38·73
	Microm.	……	34·7	……	54·9	……					
	α Coronæ borealis	23·3	38·1	53·0	8·1	23·0	26 53·10	+ 0·23	53·23	+53·26	15 27 46·59
	α Serpentis	53·0	6·5	19·9	33·3	46·6	35 19·86	+ 0·31	53·29	+53·27	15 36 13·44
	δ Ursæ Minoris	……	56·5	42·0	24·5	……	24 41·04	− 3·19	………	+53·40	18 25 31·25
	Microm.	……	49·5	……	32·5	……					

(*a*) 0s·01 to be subtracted from Apparent Right Ascension observed for defect of illuminated disc.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
June 29	α Lyræ	57·8	14·5	31·8	48·8	5·8	30 31·74	+ 0·16	+ 53·47	+ 53·41	18 31 25·31
July 1	α Scorpii	58·4	13·2	28·0	42·8	57·8	18 28·04	+ 0·61	+ 55·28	+ 55·47	16 19 24·12
	α Aurigæ S. P.	0·2	19·2	38·2	57·2	16·3	3 38·23	+ 0·58	....	+ 55·51	17 4 34·32
	............*Microm.*	......	28·7	...	47·8	......					
	α Herculis	49·0	2·5	16·3	30·1	43·8	6 16·34	+ 0·40	55·61	+ 55·51	17 7 12·25
	α Ophiuchi	58·3	11·8	25·6	39·2	52·9	26 25·56	+ 0·41	55·47	+ 55·52	17 27 21·49
	γ Draconis	12·1	33·3	54·8	16·1	37·5	51 54·74	+ 0·17	....	+ 55·54	17 52 50·45
	............*Microm.*	......	44·1	......	5·3	......					
	δ Ursæ Minoris	......	52·5	36·5	20·5	......	24 37·04	− 2·95	....	+ 55·57	18 25 29·66
	............*Microm.*	......	46·5	......	28·5	......					
	α Lyræ	55·4	12·4	29·3	46·4	3·4	30 29·39	+ 0·27	55·72	+ 55·57	18 31 25·23
	............*Microm.*	......	21·0	......	37·8	......					
July 2	Sun 1 Limb	19·6	34·3	48·7	3·3	17·8	43 48·74	+ 0·36	....	+ 56·10	6 44 45·20
	Sun 2 Limb	37·0	51·4	6·1	20·5	35·1	46 6·02	+ 0·36	....	+ 56·10	6 47 2·48
	α Canis Minoris	19·0	32·4	45·7	59·0	12·3	29 45·68	+ 0·44	+ 56·18	+ 56·13	7 30 42·25
	β Geminorum	49·1	4·3	19·2	34·2	49·8	34 19·32	+ 0·33	56·08	+ 56·13	7 35 15·78
	Venus 1 Limb	17·4	31·3	45·2	59·0	12·8	51 45·14	+ 0·39	....	+ 56·19	8 52 41·72
July 4	Sun 1 Limb	32·3	46·7	1·3	15·8	30·3	52 1·28	+ 0·36	....	+ 58·47	6 53 0·11
	Sun 2 Limb	49·8	4·2	18·5	33·0	47·5	54 18·60	+ 0·36	....	+ 58·47	6 55 17·43
	Venus 1 Limb	3·8	17·3	31·4	44·8	58·8	51 31·22	+ 0·39	....	+ 58·57	8 52 30·18
	α Leonis	11·5	25·0	38·7	52·4	6·2	58 38·76	+ 0·41	+ 58·65	+ 58·62	9 59 37·79
	β Leonis	15·3	29·0	42·8	56·5	10·4	39 42·80	+ 0·40	58·64	+ 58·71	11 40 41·91
	α Ursæ Minor. S. P.	......	40·0	47·5	53·5	......	59 46·79	+ 7·70	....	+ 58·77	13 0 53·26
	............*Microm.*	......	44·0	......	50·5	......					
	α Virginis	8·3	21·8	35·2	48·9	2·4	15 35·32	+ 0·52	58·86	+ 58·78	13 16 34·62
	α Bootis	44·7	58·9	13·1	27·3	41·4	7 13·08	+ 0·38	58·84	+ 58·82	14 8 12·28
	α^2 Libræ	23·5	37·3	51·3	5·0	18·9	40 51·20	+ 0·55	58·80	+ 58·85	14 41 50·60
	β Ursæ Minoris	39·5	30·3	21·2	11·9	3·0	50 21·16	− 0·33	....	+ 58·86	14 51 19·69
	............*Microm.*	......	56·0	......	46·2	......					
	α Persei S. P.	58·3	18·8	39·2	59·6	20·0	11 39·20	+ 0·61	....	+ 58·87	15 12 38·68
	............*Microm.*	......	29·2	......	49·3	......					
	α Aurigæ S. P.	56·3	15·6	34·8	54·0	13·2	3 34·77	+ 0·58	....	+ 58·96	17 4 34·31
	............*Microm.*	......	25·2	......	44·3	......					
July 6	(*a*) Sun 1 Limb	44·4	58·9	13·3	27·8	42·3	1 13·34	+ 0·36	....	+ 0·68	7 1 14·38
	Sun 2 Limb	1·3	15·7	30·2	44·7	59·2	3 30·22	+ 0·36	....	+ 0·68	7 3 31·26
	β Leonis	13·0	26·8	40·5	54·4	8·3	40 40·60	+ 0·40	+ 0·82	+ 0·89	11 40 41·89
	α Ursæ Minor. S. P.	......	41·5	47·0	52·5	......	0 46·69	+ 7·70	....	+ 0·95	13 0 55·34
	............*Microm.*	......	45·0	......	49·0	......					
	α Virginis	6·3	19·6	33·2	46·5	0·3	16 33·18	+ 0·52	0·98	+ 0·96	13 16 34·66
	α Bootis	42·5	56·6	10·8	25·0	39·2	8 10·82	+ 0·38	1·08	+ 1·00	14 8 12·20
	α^2 Libræ	21·4	35·2	49·0	2·8	16·6	41 49·00	+ 0·55	0·99	+ 1·03	14 41 50·58
	β Ursæ Minoris	36·8	27·7	18·5	9·2	0·2	51 18·47	− 0·33	....	+ 1·04	14 51 19·18
	............*Microm.*	......	53·3	......	43·6	......					
	α Persei S. P.	56·3	17·0	37·0	57·5	18·0	12 37·16	+ 0·61	....	+ 1·06	15 12 38·83
	............*Microm.*	......	27·0	......	47·3	......					
	α Serpentis	45·1	58·4	12·0	25·3	38·6	36 11·88	+ 0·44	1·10	+ 1·08	15 36 13·40
	α Aurigæ S. P.	54·3	13·4	32·5	51·5	10·5	4 32·50	+ 0·58	....	+ 1·15	17 4 34·23
	............*Microm.*	......	23·3	......	42·0	......					
July 7	Sun 1 Limb	49·7	4·2	18·6	33·0	47·5	5 18·60	+ 0·36	....	+ 1·87	7 5 20·83
	Sun 2 Limb	6·7	21·2	35·5	49·9	4·4	7 35·54	+ 0·36	....	+ 1·87	7 7 37·77
July 8	Sun 1 Limb	......	......	......	37·8	......	9 23·40	+ 0·37	....	+ 3·10	7 9 26·87
	Sun 2 Limb	11·3	25·8	40·3	54·7	9·3	11 40·28	+ 0·37	....	+ 3·10	7 11 43·75

(*a*) Clock advanced one minute.

Date.	Object Observed.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
July 8	Venus 1 Limb········	42·7	56·3	10·0	23·7	37·4	50 10·02	+ 0·40	·········	+ 3·19	8 50 13·61
	α Bootis················	40·1	54·2	8·4	22·6	36·8	8 8·42	+ 0·38	+ 3·46	+ 3·46	···············
July 10	Mars 2 Limb··········	54·1	8·5	22·7	37·0	51·3	5 22·72	+ 0·37	·········	+ 6·63	4 5 29·72
	α Tauri ················	56·2	10·0	23·8	37·6	51·6	26 23·84	+ 0·39	+ 6·68	+ 6·64	4 26 30·87
	α Orionis··············	43·4	56·7	10·4	23·7	37·0	46 10·24	+ 0·44	6·67	+ 6·71	5 46 17·39
July 11	Mars 2 Limb··········	48·6	2·7	17·2	31·4	45·6	8 17·10	+ 0·37	·········	+ 7·68	4 8 25·15
	α Tauri················	55·1	······	······	······	50·5	26 22·78	+ 0·39	+ 7·77	+ 7·69	4 26 30·86
	β Tauri················	17·3	32·2	47·5	2·4	17·7	15 47·42	+ 0·33	7·79	+ 7·73	5 15 55·48
	α Orionis··············	42·3	55·8	9·3	22·8	36·2	46 9·28	+ 0·44	7·65	+ 7·75	5 46 17·47
	Mercury 2 Limb······	5·2	19·2	33·3	47·3	······	7 33·32	+ 0·38	·········	+ 7·77	6 7 41·47
	α Canis Majoris·······	18·3	32·3	46·2	0·2	14·0	37 46·20	+ 0·55	7·76	+ 7·79	6 37 54·54
July 12	Sun 1 Limb···········	10·5	24·9	39·3	53·5	7·8	25 39·20	+ 0·37	·········	+ 7·82	7 25 47·39
	Sun 2 Limb···········	26·8	41·2	······	······	24·3	27 55·56	+ 0·37	·········	+ 7·82	7 28 3·75
July 13	α Ursæ Minor. S.P.···	······	38·0	44·0	50·0	······	0 43·49	+ 7·70	·········	+ 9·36	13 1 0·55 †
	············*Microm.* ····	······	41·0	······	46·0	······					
	α Ophiuchi············	······	······	11·5	25·3	38·7	27 11·53	+ 0·41	+ 9·51	+ 9·55	17 27 21·49 †
	δ Ursæ Minoris········	55·0	38·0	22·0	······	······	25 21·90	− 2·96	·········	+ 9·59	18 25 28·53 †
	············*Microm.* ····	······	30·0	······	13·5	······					
	α Lyræ·················	41·5	58·5	15·5	32·6	49·5	31 15·52	+ 0·27	9·63	+ 9·59	18 31 25·38 †
July 17	Mars 2 Limb··········	12·4	26·6	41·0	55·2	9·4	25 40·92	+ 0·46	·········	+ 14·03	4 25 55·41 †
	Mercury 2 Limb······	30·0	44·3	58·4	13·0	······	23 58·56	+ 0·46	·········	+ 14·11	6 24 13·13 †
July 18	Sun 1 Limb···········	21·4	35·6	50·0	4·3	18·5	49 49·96	+ 0·46	·········	+ 14·17	7 50 4·59 †
	Sun 2 Limb···········	37·0	······	······	······	······	52 5·55	+ 0·46	·········	+ 14·17	7 52 20·18 †
	Venus 1 Limb········	18·1	31·7	45·3	59·1	······	33 45·39	+ 0·51	·········	+ 14·20	8 34 0·10 †
	Moon 1 Limb··········	······	55·6	9·5	23·3	37·0	29 9·50	+ 0·57	·········	+ 14·33	11 29 24·40 †
	β Leonis···············	59·4	13·1	27·0	40·6	54·4	40 26·90	+ 0·49	+ 14·34	+ 14·34	11 40 41·73 †
	α Ursæ Minor. S.P.···	······	36·0	40·0	46·0	······	0 40·09	+ 10·75	·········	+ 14·39	13 1 5·23 †
	············*Microm.* ····	······	38·0	······	42·0	······					
	δ Ursæ Minoris·······	······	32·5	16·0	······	44·5	25 16·32	− 4·18	·········	+ 14·63	18 25 26·77 †
	········ ···*Microm.* ····	······	24·7	······	7·0	······					
	α Lyræ·················	36·4	53·4	10·5	27·5	44·5	31 10·46	+ 0·33	14·62	+ 14·63	18 31 25·42 †
July 19	Sun 1 Limb···········	21·4	35·6	50·0	4·2	18·5	53 49·94	+ 0·46	·········	+ 15·22	7 54 5·62 †
	Sun 2 Limb···········	36·6	51·0	5·2	19·4	33·6	56 5·16	+ 0·46	·········	+ 15·22	7 56 20·84 †
	Venus 1 Limb········	······	······	······	······	53·3	31 25·96	+ 0·51	·········	+ 15·25	8 31 41·72 †
	α Leonis···············	54·7	8·3	22·0	35·5	49·3	59 21·96	+ 0·51	+ 15·33	+ 15·32	9 59 37·79 †
	α Coronæ borealis·····	0·6	15·4	30·4	45·4	0·5	27 30·46	+ 0·42	15·48	+ 15·56	15 27 46·44 †
	α Aurigæ··············	40·4	59·4	18·5	37·6	56·6	4 18·50	+ 0·26	16·20	+ 16·06	5 4 34·82 †
	β Orionis··············	······	9·2	22·5	36·0	49·4	6 22·56	+ 0·64	16·20	+ 16·06	5 6 39·26 †
	Mercury 2 Limb······	······	18·6	33·0	······	······	32 32·96	+ 0·46	·········	+ 16·10	6 32 49·52 †
July 20	Sun 1 Limb···········	······	35·0	49·0	3·4	18·0	57 49·23	+ 0·46	·········	+ 16·15	7 58 5·84 †
	Sun 2 Limb···········	36·1	50·2	4·4	18·6	33·0	0 4·46	+ 0·46	·········	+ 16·15	8 0 21·07 †
	Venus 1 Limb········	······	······	1·1	14·6	······	29 1·02	+ 0·51	·········	+ 16·16	8 29 17·69 †
	α Ursæ Minor. S.P.···	25·0	32·0	······	······	······	0 37·80	+ 10·75	·········	+ 16·30	13 1 4·85 †
	α Herculis·············	28·0	41·5	55·2	9·1	23·0	6 55·36	+ 0·50	+ 16·45	+ 16·43	17 7 12·29 †
	α Ophiuchi············	37·2	51·0	4·5	18·1	32·0	27 4·56	+ 0·51	16·36	+ 16·44	17 27 21·51 †
	16 Sagittarii···········	44·1	58·3	12·7	27·0	41·0	5 12·62	+ 0·72	·········	+ 16·46	18 5 29·80 †
	δ Ursæ Minoris········	47·5	31·0	14·0	······	······	25 14·20	− 4·18	·········	+ 16·47	18 25 26·49 †
	············*Microm.* ····	······	23·5	······	4·0	······					
	α Lyræ······· ········	34·5	51·4	8·5	25·6	42·7	31 8·54	+ 0·33	16·53	+ 16·47	18 31 25·34 †

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
July 22	Venus 1 Limb	......	......	59·3	12·8	......	23 59·23	+ 0·51	....	+ 17·92	8 24 17·66
	α Herculis	26·3	39·7	53·5	7·3	20·7	6 53·50	+ 0·50	+ 18·30	+ 18·30	....
July 23	Sun 1 Limb	15·7	3·1	44·3	......	......	9 44·23	+ 0·47	....	+ 18·96	8 10 3·66
	Sun 2 Limb	......	44·6	58·8	13·2	27·0	11 58·81	+ 0·47	....	+ 18·96	8 12 18·24
July 25	α Aurigæ S. P.	35·0	53·8	13·2	32·0	51·3	4 13·04	+ 0·78	....	+ 21·44	17 4 35·26
	Microm.	......	3·5	......	22·5	......					
	α Herculis	23·0	36·4	50·4	4·2	17·7	6 50·34	+ 0·50	+ 21·44	+ 21·44	17 7 12·28
	α Ophiuchi	32·4	45·8	59·5	13·2	26·8	26 59·54	+ 0·51	21·35	+ 21·46	17 27 21·51
	γ Draconis	46·2	7·5	29·0	50·2	11·7	52 28·90	+ 0·19	....	+ 21·48	17 52 50·57
	Microm.	......	18·2	......	39·5	......					
	δ Ursæ Minoris	42·0	25·5	9·0	52·0	35·5	25 8·47	− 4·18	....	+ 21·50	18 25 25·79
	Microm.	......	16·5	......	59·0	......					
	α Lyræ	29·4	46·3	3·4	20·5	37·5	31 3·42	+ 0·33	21·62	+ 21·50	18 31 25·25
July 26	α Serpentis	23·6	37·0	50·4	3·7	17·2	35 50·38	+ 0·55	+ 22·33	+ 22·34	15 36 13·27
	α Herculis	21·9	35·5	49·4	3·1	16·9	6 49·36	+ 0·50	22·41	+ 22·40	17 7 12·26
	α Ophiuchi	31·3	44·7	58·5	12·1	25·8	26 58·48	+ 0·51	22·41	+ 22·41	17 27 21·40
	γ Draconis	45·0	6·3	27·5	49·0	10·3	52 27·63	+ 0·19	....	+ 22·43	17 52 50·25
	Microm.	......	17·0	......	38·3	......					
	α Lyræ	28·5	45·5	2·6	19·7	36·7	31 2·60	+ 0·33	22·44	+ 22·45	18 31 25·38
July 27	Sun 1 Limb	0·5	14·7	28·7	42·7	56·8	25 28·68	+ 0·47	....	+ 22·98	8 25 52·13
	Sun 2 Limb	14·6	28·6	42·7	57·0	11·2	27 42·82	+ 0·47	....	+ 22·98	8 28 6·27
July 30	α Herculis	18·2	21·8	45·6	59·4	13·3	6 45·66	+ 0·50	+ 26·08	+ 26·03	17 7 12·19
	γ Draconis	41·2	2·6	23·8	45·2	6·8	52 33·91	+ 0·19	....	+ 26·05	17 52 50·15
	Microm.	......	13·3	......	34·5	......					
	α Cygni	49·2	7·7	26·4	45·3	4·0	35 26·50	+ 0·27	26·10	+ 26·16	20 35 52·93
	Microm.	......	17·3	......	35·6	......					
July 31	α Aurigæ	29·4	48·3	7·7	26·5	45·8	4 7·56	+ 0·26	+ 27·59	+ 27·54	5 4 35·36
	Microm.	......	58·0	......	17·2	....					
	Mars 2 Limb	41·9	56·3	10·7	25·2	39·7	6 10·76	+ 0·45	....	+ 27·54	5 6 38·75
	β Tauri	57·8	13·0	28·1	43·2	58·5	15 28·12	+ 0·41	27·59	+ 27·55	5 15 56·08
	Mercury 2 Limb	54·0	8·3	22·5	37·0	51·3	52 22·62	+ 0·46	....	+ 27·66	7 52 50·74
Aug. 1	α Scorpii	25·7	40·1	54·9	9·9	24·5	18 55·02	+ 0·77	27·95	+ 28·00	16 19 23·79
	α Aurigæ S. P.	28·3	47·5	6·3	25·8	44·8	4 6·54	+ 0·78	....	+ 28·03	17 4 35·35
	Microm.	......	57·0	......	16·1	......					
	α Herculis	16·4	30·0	43·5	57·4	11·0	6 43·66	+ 0·50	28·06	+ 28·03	17 7 12·19
	α Ophiuchi	25·5	39·2	52·8	6·3	19·9	26 52·74	+ 0·51	28·10	+ 28·05	17 27 21·30
	γ Draconis	39·2	0·5	22·0	43·3	4·6	52 21·91	+ 0·19	....	+ 28·06	17 52 50·16
	Microm.	......	11·3	......	32·5	......					
	δ Ursæ Minoris	......	15·5	59·5	......	......	24 59·23	− 4·18	....	+ 28·08	18 25 23·13
	Microm.	......	7·0	......	......	......					
	α Aquilæ	53·7	7·0	20·5	33·8	47·5	42 20·50	+ 0·54	28·17	+ 28·13	19 42 49·17
	β Aquilæ	22·5	35·9	49·3	2·5	15·9	46 49·22	+ 0·55	28·07	+ 28·13	19 47 17·90
	Venus 2 Limb	......	......	25·0	38·7	52·3	56 25·01	+ 0·51	....	+ 28·59	7 56 54·11
	Mercury 2 Limb	9·3	23·5	38·0	52·2	6·5	0 37·90	+ 0·46	....	+ 28·60	8 1 6·96
Aug. 2	Sun 1 Limb	20·1	34·0	47·8	1·8	16·0	48 47·94	+ 0·48	....	+ 28·63	8 49 17·05
	Sun 2 Limb	33·0	46·8	1·0	14·8	28·8	51 0·88	+ 0·48	....	+ 28·63	8 51 29·99
Aug. 4	α Ursæ Minor. S. P.	......	......	36·0	43·0	47·0	0 35·65	+ 10·75	....	+ 30·99	13 1 17·39 †
	Microm.	......	......	......	38·5	......					
	α Bootis	12·5	26·7	40·8	55·0	9·2	7 40·84	+ 0·46	+ 30·63	+ 30·65	14 8 11·95

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Aug. 4	α Coronæ borealis·····	45·0	0·0	15·0	30·0	44·9	27 14·98	+ 0·42	+30·72	+30·70	15 27 46·10
	α Serpentis··············	15·1	28·6	42·0	55·4	8·7	35 41·96	+ 0·55	30·64	+30·70	15 36 13·21
	α Scorpii················	22·6	37·4	52·1	7·0	21·8	18 52·18	+ 0·77	30·76	+30·73	16 19 23·68
	α Ophiuchi··············	22·8	36·3	50·0	3·6	17·3	26 50·00	+ 0·51	30·82	+30·79	17 27 21·30
	γ Draconis··············	36·7	57·8	19·1	40·4	2·3	52 19·21	+ 0·19	··········	+30·80	17 52 50·20
	············*Microm.* ····	······	8·5	······	29·7	······					
	δ Ursæ Minoris········	29·5	14·0	······	······	······	24 57·25	− 4·18		+30·82	18 25 23·89
	α Ceti···················	45·2	58·5	12·0	25·2	38·4	53 11·86	+ 0·57	+31·42	+31·60	2 53 44·03 †
	Moon 2 Limb··········	49·0	3·2	17·6	32·1	46·4	25 17·66	+ 0·49	··········	+31·63	3 25 49·78 †
	α Tauri·················	31·8	45·5	59·4	13·3	27·2	25 59·44	+ 0·49	31·72	+31·68	4 26 31·61 †
	α Aurigæ···············	25·5	44·4	3·4	22·3	41·5	4 3·42	+ 0·26	31·89	+31·70	5 4 35·38 †
	β Orionis···············	40·6	54·0	7·5	21·0	34·5	6 7·52	+ 0·64	31·66	+31·70	5 6 39·86 †
	β Tauri·················	54·0	9·0	24·2	39·2	54·3	15 24·14	+ 0·41	31·70	+31·71	5 15 56·26 †
	Mars 2 Limb ··········	11·2	25·7	40·2	54·5	······	17 40·14	+ 0·44	··········	+31·71	5 18 12·29 †
	Venus 2 Limb·········	5·5	19·3	32·8	46·3	0·1	50 32·80	+ 0·51	··········	+31·42	7 51 4·73
	Mercury 2 Limb······	······	······	59·3	13·4	28·0	25 59·28	+ 0·46	··········	+31·45	8 26 31·19
Aug. 5	Sun 1 Limb············	51·8	5·7	19·8	33·8	47·7	0 19·76	+ 0·48	··········	+31·48	9 0 51·72
	Sun 2 Limb············	4·5	18·3	32·2	46·1	0·2	2 32·26	+ 0·48	··········	+31·48	9 3 4·22
	α Bootis················	11·5	25·6	39·7	54·0	8·2	7 39·80	+ 0·46	+31·65	+31·70	14 8 11·96
	α Coronæ borealis ····	44·2	59·0	14·1	29·0	44·0	27 14·06	+ 0·42	31·63	+31·76	15 27 46·24
	α Serpentis·············	14·1	27·3	40·7	54·1	7·6	35 40·76	+ 0·55	31·83	+31·76	15 36 13·07
	α Herculis··············	12·4	25·9	39·9	53·5	7·2	6 39·78	+ 0·50	31·90	+31·83	17 7 12·11
	α Ophiuchi·············	21·7	35·2	48·8	2·5	16·3	26 48·90	+ 0·51	31·91	+31·84	17 27 21·25
	γ Draconis·············	35·5	56·3	17·8	39·4	1·0	52 18·00	+ 0·19	··········	+31·86	17 52 50·05
	············*Microm.* ····	······	7·3	······	28·7	······					
	Venus 2 Limb·········	24·4	37·9	51·8	5·3	19·1	48 51·70	+ 0·51	··········	+32·42	7 49 24·63
Aug. 6	Sun 1 Limb············	······	······	······	······	37·0	4 9·15	+ 0·49	··········	+32·47	9 4 42·11
	Sun 2 Limb············	53·7	7·4	21·4	35·2	49·2	6 21·38	+ 0·49	··········	+32·47	9 6 54·34
	α Bootis ················	10·4	24·3	38·6	52·8	7·0	7 38·62	+ 0·46	+32·82	+32·68	14 8 11·76
	α Coronæ borealis·····	43·0	57·9	12·8	27·8	42·8	27 12·86	+ 0·42	32·81	+32·73	15 27 46·01
	α Lyræ·················	17·9	35·0	52·3	9·4	26·4	30 52·20	+ 0·33	32·74	+32·86	18 31 25·39
	γ Aquilæ ···············	29·7	43·3	56·7	10·2	23·7	37 56·72	+ 0·53	32·85	+32·92	19 38 30·17
	α Aquilæ···············	49·0	2·4	15·8	29·2	42·6	42 15·80	+ 0·54	32·88	+32·92	19 42 49·26
	β Aquilæ ···············	17·7	31·1	44·4	57·8	11·2	46 44·44	+ 0·55	32·86	+32·92	19 47 17·91
	λ Ursæ Minoris ·······	38·5	23·0	6·0	52·0	40·5	25 8·12	−13·04	··········	+32·95	20 25 28·03
	············*Microm.* ····	······	47·5	······	30·0	······					
	Pallas ···················	42·5	56·2	9·8	23·3	37·2	6 9·80	+ 0·51	··········	+32·98	21 6 43·29
Aug. 7	α Aurigæ···············	22·7	41·7	0·8	20·0	38·8	4 0·80	+ 0·26	+34·63	+34·51	5 4 35·57
	············*Microm.* ····	······	51·3	······	10·3	······					
	β Orionis···············	38·0	51·3	4·8	18·3	31·7	6 4·82	+ 0·64	34·44	+34·51	5 6 39·97
	β Tauri·················	51·2	6·3	21·4	36·5	51·7	15 21·42	+ 0·41	34·52	+34·51	5 15 56·34
	Mars 2 Limb ··········	46·7	1·2	15·5	30·0	44·6	26 15·60	+ 0·44	··········	+34·52	5 26 50·56
	α Orionis ···············	16·1	29·5	43·0	56·4	9·9	45 42·98	+ 0·54	34·50	+34·54	5 46 18·06
Aug. 8	Sun 1 Limb············	18·4	32·2	······	······	13·8	11 46·09	+ 0·49	··········	+34·70	9 12 21·28
	Sun 2 Limb············	······	44·0	57·9	12·0	25·5	13 57·92	+ 0·49	··········	+34·70	9 14 33·11
	α Ursæ Minor. S.P.···	20·5	28·5	34·5	42·0	48·5	0 34·93	+10·75	··········	+34·89	13 1 20·57
	············*Microm.* ····	······	32·5	······	37·5	······					
	α Bootis ················	8·2	22·3	36·5	50·7	4·8	7 36·50	+ 0·46	34·91	+34·94	14 8 11·90
	α Coronæ borealis ····	40·8	55·6	10·6	25·7	40·7	27 10·68	+ 0·42	34·96	+35·01	15 27 46·11
	α Serpentis·············	10·7	24·1	37·6	50·9	4·4	35 37·54	+ 0·55	35·01	+35·02	15 36 13·11
	α Aurigæ S.P.·········	21·7	40·8	0·0	19·1	38·2	3 59·96	+ 0·78	··········	+35·08	17 4 35·82
	············*Microm.* ····	······	50·4	······	9·5	······					
	α Herculis··············	9·0	22·8	36·4	50·3	4·2	6 36·54	+ 0·50	35·11	+35·09	17 7 12·13
	α Ophiuchi·············	18·5	31·9	45·7	59·3	12·8	26 45·64	+ 0·51	35·14	+35·10	17 27 21·25

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Aug. 8	γ Draconis	32·5	53·3	14·8	36·2	57·4	52 14·79	+ 0·19	....	+ 35·13	17 52 50·11
	............Microm.	......	4·1	......	25·2	......					
	δ Ursæ Minoris	23·5	7·0	50·5	34·0	18·0	24 50·47	− 4·18	....	+ 35·15	18 25 21·44
	............Microm.	......	59·0	......	41·5	......					
	λ Ursæ Minoris	37·5	20·0	4·0	51·0	36·5	25 5·91	− 13·04	....	+ 35·25	20 25 28·12
	............Microm	......	45·0	......	28·0	......					
	Pallas	7·4	20·8	34·5	48·3	1·7	4 34·54	+ 0·51	....	+ 35·28	21 5 10·33
	Mars 2 Limb	37·9	52·4	6·9	21·3	36·1	29 6·92	+ 0·44	....	+ 35·70	5 29 43·06
	Venus 2 Limb	15·6	29·6	43·4	57·0	10·7	44 43·26	+ 0·51	....	+ 35·80	7 45 19·57
	Mercury 2 Limb	32·1	46·3	0·6	14·4	28·8	0 0·44	+ 0·48	....	+ 35·87	9 0 36·79
Aug. 9	Sun 1 Limb	5·8	19·8	33·4	47·2	1·3	15 33·50	+ 0·49	....	+ 35·88	9 16 9·87
	Sun 2 Limb	17·3	31·3	45·3	59·2	12·8	17 45·18	+ 0·49	....	+ 35·88	9 18 21·55
	β Leonis	38·0	51·5	5·3	19·2	32·8	40 5·36	+ 0·49	+ 35·75	+ 36·00	11 40 41·85
	α Ursæ Minor. S. P.	18·5	28·0	......	......	......	0 33·57	+ 10·75	....	+ 36·06	13 1 20·38 †
	(a) ....Microm.	7·0	48·5	28·5	9·0	49·5					
		10·5	50·0	......	......	......					
		INSTRUMENT REVERSED.									
	α Ursæ Minor. S. P.	......	......	......	35·0	43·0	0 27·86	+ 14·69	....	+ 36·06	13 1 18·61 †
	(b) ....Microm.	49·0	9·0	50·0	29·5	10·5					
		50·5	12·0	52·5	33·5	14·0					
	α Bootis	7·3	21·4	35·5	49·7	3·8	7 35·54	+ 0·23	36·09	+ 36·12	14 8 11·89
	α^2 Libræ	46·0	59·8	13·4	27·2	40·9	41 13·46	+ 0·43	36·29	+ 36·15	14 41 50·04
	δ Ursæ Minoris	......	8·5	52·0	36·5	......	24 52·06	− 6·11	....	+ 36·31	18 25 22·26
	............Microm.	......	0·5	......	43·5	......					
	α Lyræ	14·6	31·8	48·8	6·0	22·8	30 48·80	+ 0·08	36·36	+ 36·32	18 31 25·20
	α Aquilæ	45·6	59·0	12·5	26·0	39·4	42 12·50	+ 0·31	36·42	+ 36·37	19 42 49·18
	β Aquilæ	14·3	27·7	41·0	54·4	7·8	46 41·04	+ 0·32	36·49	+ 36·37	19 47 17·73
	λ Ursæ Minoris	38·0	23·0	10·0	56·5	35·5	25 9·02	− 18·44	....	+ 36·40	20 25 26·98
	............Microm.	......	47·5	......	32·0	......					
	Pallas	19·5	32·8	47·0	0·3	14·0	3 46·72	+ 0·28	....	+ 36·43	21 4 23·43
	Uranus	30·7	44·1	57·8	11·2	24·8	20 57·72	+ 0·41	....	+ 36·48	22 21 34·61
	Venus 2 Limb	12·2	26·0	39·5	53·1	6·8	43 39·52	+ 0·27	....	+ 36·88	7 44 16·67
Aug. 10	Sun 1 Limb	53·0	6·8	20·7	34·6	48·5	19 20·72	+ 0·26	....	+ 36·95	9 19 57·93
	Sun 2 Limb	4·3	18·2	32·2	45·4	59·7	21 31·96	+ 0·26	....	+ 36·95	9 22 9·17
	α Ursæ Minor. S. P.	18·0	22·5	30·0	36·5	44·0	0 30·36	+ 14·69	....	+ 37·10	13 1 22·15
	............Microm.	......	28·5	......	33·5	......					
	α Coronæ borealis	38·7	53·6	8·7	23·6	38·5	27 8·62	+ 0·19	+ 37·22	+ 37·21	15 27 46·02
	α Serpentis	8·8	22·2	35·5	49·0	2·3	35 35·56	+ 0·31	37·20	+ 37·22	15 36 13·09
	α Ophiuchi	16·4	30·1	43·8	57·4	11·2	26 43·78	+ 0·28	37·21	+ 37·30	17 27 21·36
	γ Draconis	30·0	51·3	12·6	34·2	55·2	52 12·70	− 0·08	....	+ 37·31	17 52 49·93
	............Microm.	......	2·3	......	23·3	......					
	δ Ursæ Minoris	......	7·0	50·0	......	15·5	24 49·85	− 6·11	....	+ 37·33	18 25 21·07
	............Microm.	......	......	......	42·0	......					
	γ Aquilæ	25·3	39·0	52·3	5·9	19·3	37 52·36	+ 0·30	37·43	+ 37·39	19 38 30·05
	α Aquilæ	44·5	58·0	11·6	25·0	38·3	42 11·48	+ 0·31	37·43	+ 37·39	19 42 49·18
	Pallas	31·8	45·8	59·0	12·9	26·4	2 59·18	+ 0·28	....	+ 37·44	21 3 36·90
Aug. 11	Sun 1 Limb	39·4	53·2	6·8	20·7	34·4	23 6·90	+ 0·26	....	+ 37·95	9 23 45·11
	Sun 2 Limb	50·5	4·7	18·3	32·1	46·0	25 18·32	+ 0·26	....	+ 37·95	9 25 56·53
	α Ursæ Minor. S. P.	13·5	21·5	27·5	33·0	41·5	0 27·36	+ 14·69	....	+ 38·09	13 1 20·14
	............Microm.	......	24·5	......	30·5	......					
	α Coronæ borealis	37·8	52·6	7·7	22·5	37·4	27 7·60	+ 0·19	+ 38·22	+ 38·19	15 27 45·98
	α Serpentis	7·8	21·2	34·5	47·9	1·3	35 34·54	+ 0·31	38·21	+ 38·20	15 36 13·05
	α Herculis	5·7	19·5	33·6	47·3	1·2	6 33·46	+ 0·27	38·38	+ 38·26	17 7 11·99

(a) Micrometer 8^{r}·5, 8^{r}·0, 7^{r}·5, 7^{r}·0, 6^{r}·5, 5^{r}·5, and 5^{r}·0 before Wire III.

(b) Micrometer 2^{r}·5, 3^{r}·5, 4^{r}·0, 4^{r}·5, 5^{r}·0, 5^{r}·5, 6^{r}·5, 7^{r}·0, 7^{r}·5, and 8^{r}·0 after Wire III.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Aug. 11	α Ophiuchi	15·5	29·2	42·7	56·5	10·2	26 42·82	+ 0·28	+ 38·15	+ 38·26	17 27 21·36
	δ Ursæ Minoris........	22·5	6·0	49·0	33·0	17·0	24 49·53	− 6·11	....	+ 3··28	18 25 21·70
	............*Microm.*	......	58·0	......	41·0	......					
	α Lyræ..................	12·8	29·6	46·8	4·0	20·9	30 46·82	+ 0·08	38·31	+ 38·28	18 31 25·18
	λ Ursæ Minoris........	36·0	23·5	9·0	50·0	37·0	25 7·23	− 18·44	....	+ 38·32	20 25 27·11
	............*Microm.*	......	46·5	......	27·0	......					
	Pallas	44·8	58·3	12·0	25·8	39·3	2 12·04	+ 0·28	....	+ 38·33	21 2 50·65
	Uranus..................	11·5	25·1	38·3	52·3	5·7	20 38·58	+ 0·41	....	+ 38·35	22 21 17·34
	Venus 2 Limb.........	34·4	48·3	2·2	15·9	29·5	42 2·06	+ 0·27	....	+ 38·52	7 42 40·85
Aug. 12	Sun 1 Limb............	25·7	39·7	53·6	7·4	20·9	26 53·46	+ 0·26	....	+ 38·55	9 27 32·27
	Sun 2 Limb............	......	......	4·8	18·7	32·5	29 4·86	+ 0·26	....	+ 38·55	9 29 43·67
	α Ursæ Minor. S.P....	......	21·5	28·0	34·0	41·5	0 28·12	+ 14·69	....	+ 38·62	13 1 21·43
	............*Microm.*	......	25·5	......	......	......					
	α Aurigæ S.P.........	18·2	37·3	56·4	15·4	34·4	3 56·27	+ 0·88	....	+ 38·69	17 4 35·84
	............*Microm.*	......	46·4	......	5·8	......					
	α Herculis..............	5·7	19·4	33·2	47·0	0·6	6 33·18	+ 0·27	+ 38·65	+ 38·69	17 7 12·14
	α Ophiuchi.............	15·0	28·4	42·3	56·2	9·4	26 42·26	+ 0·28	38·70	+ 38·70	17 27 21·24
	γ Draconis	28·8	50·1	11·2	32·8	54·0	52 11·37	− 0·08	....	+ 38·71	17 52 50·00
	.... *Microm.*	......	0·7	......	22·0	......					
	δ Ursæ Minoris........	21·0	5·5	49·0	33·0	16·5	24 48·96	− 6·11	....	+ 38·72	18 25 21·57
	............*Microm.*	......	57·0	......	40·5	......					
	α Lyræ..................	12·3	29·5	46·5	3·5	20·4	30 46·44	+ 0·08	38·67	+ 38·72	18 31 25·24
	γ Aquilæ	23·9	37·5	51·1	4·5	18·0	37 51·00	+ 0·30	38·79	+ 38·74	19 38 30·04
	α Aquilæ...............	43·2	56·6	10·1	23·6	37·0	42 10·10	+ 0·31	38·81	+ 38·74	19 42 49·15
	λ Ursæ Minoris	......	22·0	9·0	53·0	......	25 6·38	− 18·44	....	+ 38·75	20 25 26·69
	............*Microm.*	......	43·5	......	26·5	......					
	Pallas	58·3	11·8	25·4	38·8	52·5	1 25·36	+ 0·28	....	+ 38·76	21 2 4·40
	Uranus..................	2·3	15·8	29·4	43·0	56·5	20 29·40	+ 0·41	....	+ 38·77	22 21 8·58
Aug. 13	Sun 1 Limb............	12·0	25·4	39·6	53·3	6·8	30 39·42	+ 0·27	....	+ 38·93	9 31 18·62
	Sun 2 Limb............	22·9	36·7	50·5	4·4	18·0	32 50·50	+ 0·27	....	+ 38·93	9 33 29·70
	α Ursæ Minor. S.P....	17·5	22·5	28·0	36·0	43·0	0 29·36	+ 14·69	....	+ 38·98	13 1 23·03
	............*Microm.*	......	27·5	......	31·5	......					
	α Ophiuchi.............	14·7	28·3	42·0	55·6	9·3	26 41·98	+ 0·28	+ 38·97	+ 39·04	17 27 21·30
	ι Herculis	34·8	53·8	13·2	32·2	51·3	34 13·06	+ 0·00	....	+ 39·04	17 34 52·10
	γ Draconis	28·0	49·5	10·5	32·2	53·5	52 10·74	− 0·08	....	+ 39·05	17 52 49·71
	δ Ursæ Minoris........	18·5	3·0	46·5	......	......	24 46·18	− 6·11	....	+ 39·06	18 25 19·13
	............*Microm.*	......	55·0	......	37·0	......					
	α Lyræ..................	11·9	28·8	46·0	3·1	20·0	30 45·96	+ 0·08	39·13	+ 39·05	18 31 25·10
Aug. 14	β Geminorum.........	......	21·5	36·8	51·8	7·0	34 36·71	+ 0·18	+ 39·57	+ 39·57	....
	Venus 2 Limb.........	23·3	37·3	51·1	4·8	18·6	40 51·02	+ 0·27	....	+ 39·57	7 41 30·86
Aug. 15	Sun 1 Limb............	42·0	55·8	9·6	23·5	37·2	38 9·62	+ 0·27	....	+ 39·62	9 38 49·51
	Sun 2 Limb............	53·0	6·8	20·5	34·4	48·0	40 20·54	+ 0·27	....	+ 39·62	9 41 0·43
	α Ursæ Minor. S.P....	......	......	29·5	37·0	44·0	0 30·58	+ 14·70	....	+ 39·69	13 1 24·97
	............*Microm.*	......	......	......	34·0	......					
Aug. 16	Sun 1 Limb............	26·7	40·4	54·2	7·9	21·6	41 54·16	+ 0·27	....	+ 40·16	9 42 34·59
	Sun 2 Limb............	36·7	51·3	4·6	18·5	32·4	44 4·70	+ 0·27	....	+ 40·16	9 44 45·13
	α Ophiuchi	13·6	27·3	41·0	54·6	8·3	26 40·96	+ 0·28	+ 39·95	+ 40·35	17 27 21·59
	δ Ursæ Minoris........	17·0	0·0	44·0	27·5	11·0	24 43·96	− 6·11	....	+ 40·37	18 25 18·22
	............*Microm.*	......	52·5	......	35·5	......					
	α Lyræ..................	10·8	27·6	44·5	1·8	18·3	30 44·60	+ 0·08	40·45	+ 40·38	18 31 25·06
	γ Aquilæ............ ..	22·2	35·7	49·3	2·8	16·2	37 49·24	+ 0·30	40·54	+ 40·39	19 38 29·93
	α Aquilæ	41·3	54·8	8·5	22·0	35·3	42 8·38	+ 0·31	40·52	+ 40·39	19 42 49·08
	β Aquilæ	10·3	23·6	37·0	50·3	3·8	46 37·00	+ 0·32	40·51	+ 40·39	19 47 17·71

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Aug. 17	Sun 1 Limb	......	24·4	38·0	......	......	45 38·05	+ 0·27	....	+40·41	9 46 18·73
	α Coronæ borealis	35·5	50·4	5·2	20·5	35·1	27 5·34	+ 0·19	+40·38	+40·42	15 27 45·95
	α Herculis	4·1	17·7	31·4	45·3	58·8	6 31·46	+ 0·27	40·30	+40·42	17 7 12·15
	γ Draconis	26·6	48·0	9·3	30·8	52·0	52 9·30	− 0·08	....	+40·42	17 52 49·64
	Microm.	......	58·5	......	19·9	......					
	δ Ursæ Minoris	15·0	......	42·0	27·0	......	24 42·48	− 6·11	....	+40·42	18 25 16·79
	Microm.	......	......	......	34·0	......					
	γ Aquilæ	22·2	35·6	49·2	2·8	16·4	37 49·24	+ 0·30	40·53	+40·42	19 38 29·96
	α Aquilæ	41·5	55·0	......	......	......	42 8·42	+ 0·31	40·47	+40·42	19 42 49·15
Aug. 18	α Ursæ Minor. S. P.	......	......	32·0	40·0	47·5	0 33·10	+14·70	....	+40·47	13 1 28·27
	α Coronæ borealis	35·4	50·4	5·3	20·2	35·2	27 5·30	+ 0·19	+40·40	+40·48	15 27 45·97
	α Serpentis	5·5	18·8	32·2	45·8	59·1	35 32·28	+ 0·31	40·38	+40·48	15 36 13·07
	α Ophiuchi	13·2	26·7	40·6	54·3	7·7	26 40·50	+ 0·28	40·39	+40·48	17 27 21·26
	ι Herculis	33·1	52·3	11·5	30·7	50·0	34 11·52	0·00	....	+40·48	17 34 52·00
	γ Draconis	26·5	48·2	9·4	30·7	52·0	52 9·33	− 0·08	....	+40·48	17 52 49·73
	Microm.	......	58·5	......	20·0	......					
	δ Ursæ Minoris	15·0	58·0	42·5	27·5	10·0	24 42·82	− 6·11	....	+40·48	18 25 17·19
	Microm.	......	51·5	......	35·0	......					
	α Lyræ	10·3	27·3	44·3	1·4	18·4	30 44·34	+ 0·08	40·68	+40·48	18 31 24·90
	γ Aquilæ	22·2	35·6	49·2	2·8	16·2	37 49·20	+ 0·30	40·57	+40·48	19 38 29·98
	λ Ursæ Minoris	25·0	10·5	53·0	42·5	28·0	24 55·30	−18·45	....	+40·48	20 25 17·33
	Microm.	......	30·5	......	17·0	......					
	Pallas	25·0	38·8	52·2	5·7	19·2	56 52·18	+ 0·29	....	+40·48	20 57 32·95
	Uranus	7·2	20·8	34·3	47·8	1·4	19 34·30	+ 0·41	....	+40·48	22 20 15·19
Aug. 19	Sun 1 Limb	37·0	50·6	4·3	......	......	53 4·30	+ 0·28	....	+40·48	9 53 45·06
	Sun 2 Limb	47·5	1·3	14·5	28·3	42·8	55 14·88	+ 0·28	....	+40·48	9 55 55·64
	α Bootis	2·8	17·0	31·1	45·2	59·4	7 31·10	+ 0·23	+40·39	+40·48	14 8 11·81
	α Coronæ borealis	......	50·4	5·3	20·3	34·9	27 5·24	+ 0·19	40·44	+40·48	15 27 45·91
	α Ophiuchi	13·2	26·8	40·5	54·1	7·7	26 40·46	+ 0·28	40·42	+40·48	17 27 21·22
	ι Herculis	33·0	52·4	11·5	30·6	50·0	34 11·50	0·00	....	+40·48	17 34 51·98
	δ Ursæ Minoris	......	58·5	......	......	......	24 43·13	− 6·11	....	+40·49	18 25 17·51
	Microm.	......	53·0	......	34·5	......					
	α Lyræ	......	27·4	44·5	1·4	......	30 44·42	+ 0·08	40·58	+40·49	18 31 24·99
	α Cygni	35·0	53·6	12·3	31·0	49·5	35 12·28	+ 0·01	40·56	+40·51	20 35 52·80
Aug. 20	α Ursæ Minor. S. P.	......	......	......	34·5	......	0 28·10	+14·70	....	+40·68	13 1 23·48
	α Scorpii	12·6	27·5	42·3	57·3	12·1	18 42·36	+ 0·49	+40·65	+40·71	16 19 23·56
	Moon 1 Limb	29·7	44·6	59·8	14·9	30·0	24 59·80	+ 0·50	....	+40·71	16 25 41·01
	α Herculis	3·5	17·3	31·0	44·7	58·5	6 31·00	+ 0·27	40·72	+40·72	17 7 11·99
	α Ophiuchi	13·0	26·5	40·2	53·8	7·4	26 40·18	+ 0·28	40·68	+40·72	17 27 21·18
	ι Herculis	32·7	51·8	11·3	30·3	49·5	34 41·12	0·00	....	+40·72	17 34 51·84
	δ Ursæ Minoris	14·0	59·0	42·0	25·0	7·5	24 41·60	− 6·11	....	+40·73	18 25 16·22
	Microm.	......	50·0	......	33·5	......					
	α Lyræ	10·1	27·0	44·2	1·2	18·2	30 44·14	+ 0·08	40·84	+40·73	18 31 24·95
	Uranus	48·9	2·5	16·2	29·8	43·0	19 16·08	+ 0·41	....	+40·77	22 19 57·26
Aug. 22	α Aurigæ S. P.	16·4	35·5	54·4	13·7	32·8	3 54·56	+ 0·88	....	+41·21	17 4 36·65
	α Herculis	3·0	16·8	30·5	44·4	58·0	6 30·54	+ 0·27	+41·15	+41·21	17 7 12·02
	α Ophiuchi	12·4	26·2	40·0	53·5	7·0	26 39·82	+ 0·28	41·01	+41·21	17 27 21·31
	ι Herculis	32·3	51·4	10·6	29·7	49·2	34 10·64	0·00	....	+41·21	17 34 51·85
	μ^1 Sagittarii	49·3	3·8	18·0	32·2	46·3	3 17·92	+ 0·46	....	+41·22	18 3 59·60
	λ Sagittarii	42·0	56·6	11·4	26·0	40·7	17 11·34	+ 0·48	....	+41·22	18 17 53·04
	δ Ursæ Minoris	......	57·0	40·5	25·0	......	24 40·66	− 6·11	....	+41·22	18 25 15·77
	Microm.	......	49·0	......	32·5	......					
	α Lyræ	9·8	26·7	43·7	0·8	17·5	30 43·70	+ 0·08	41·25	+41·22	18 31 25·00
	Moon 1 Limb	9·0	24·8	40·4	56·0	11·8	37 40·40	+ 0·52	....	+41·22	18 38 22·14

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Aug. 22	52 Sagittarii ·········	34·8	49·4	4·3	19·1	33·5	26 4·22	+ 0·48	·········	+41·23	19 26 45·93
	γ Aquilæ ·········	21·4	35·0	48·4	2·0	15·4	37 48·44	+ 0·30	+41·30	+41·23	19 38 29·97
	α Aquilæ ·········	40·5	54·1	7·4	21·0	34·3	42 7·46	+ 0·31	41·41	+41·23	19 42 49·00
	λ Ursæ Minoris ·······	······	7·0	51·0	37·0	······	24 51·08	− 18·46	·········	+41·23	20 25 13·85
	···········*Microm.* ····	······	31·5	······	11·0	······					
	Pallas ·········	31·3	44·8	58·4	12·0	25·6	53 58·42	+ 0·29	·········	+41·23	20 54 39·94
	Uranus ·········	30·3	44·0	57·3	10·8	24·3	18 57·34	+ 0·41	·········	+41·24	22 19 38·99
	Ceres ·········	4·9	19·0	33·2	47·2	1·2	43 33·10	+ 0·45	·········	+41·25	23 44 14·80
	Venus 1 Limb ·········	10·4	24·3	38·1	51·8	5·5	44 38·02	+ 0·27	·········	+41·30	7 45 19·59
Aug. 23	Sun 1 Limb ·········	24·3	38·0	51·8	5·4	19·0	7 51·70	+ 0·29	·········	+41·31	10 8 33·30
	Sun 2 Limb ·········	34·2	47·5	1·3	14·8	28·7	10 1·30	+ 0·29	·········	+41·31	10 10 42·90
	Mercury 1 Limb ······	59·7	13·3	27·0	40·5	53·9	46 26·88	+ 0·30	·········	+41·32	10 47 8·50
	α Ursæ Minor. S. P. ···	20·0	25·5	33·0	39·0	47·5	0 32·86	+14·70	·········	+41·33	13 1 28·89
	···········*Microm.* ····	······	29·0	······	36·5	······					
	ι Herculis ·········	32·2	51·4	10·8	30·0	49·1	34 10·69	0·00	·········	+41·36	17 34 52·05
	···········*Microm.* ····	······	1·1	······	20·2	······					
	δ Ursæ Minoris ·······	14·0	58·0	42·5	25·0	8·5	24 41·82	− 6·11	·········	+41·36	18 25 17·07
	···········*Microm.* ····	······	51·0	······	33·5	······					
	α Lyræ ·········	9·5	26·5	43·5	0·7	17·7	30 43·58	+ 0·08	+41·35	+41·36	18 31 25·02
	β Geminorum ·········	4·9	19·8	35·1	50·1	5·3	34 35·04	+ 0·18	41·45	+41·49	7 35 16·71
	Venus 2 Limb ·········	18·1	31·7	45·6	59·3	13·2	45 45·58	+ 0·27	·········	+41·49	7 46 27·34
Aug. 24	Sun 1 Limb ·········	5·1	18·3	32·2	45·8	59·4	11 32·16	+ 0·29	·········	+41·53	10 12 13·98
	Sun 2 Limb ·········	14·3	28·4	41·9	55·2	8·8	13 41·72	+ 0·29	·········	+41·53	10 14 23·54
	Mercury 1 Limb ······	38·4	52·2	5·5	19·3	32·5	53 5·58	+ 0·31	·········	+41·54	10 53 47·43
	α Ursæ Minor. S. P. ···	19·0	26·0	33·0	40·0	48·0	0 33·00	+14·70	·········	+41·57	13 1 29·27
	···········*Microm.* ····	······	29·5	······	36·0	······					
	α Ophiuchi ·········	12·2	25·7	39·4	53·0	6·4	26 39·34	+ 0·28	+41·47	+41·63	17 27 21·25
	ι Herculis ·········	31·8	51·0	10·3	29·3	48·7	34 10·24	0·00	·········	+41·63	17 34 51·87
	···········*Microm.* ····	······	0·6	······	20·0	······					
	δ Ursæ Minoris ·······	14·0	58·0	41·5	25·5	8·5	24 41·74	− 6·11	·········	+41·64	18 25 17·27
	···········*Microm.* ····	······	51·0	······	33·5	······					
	α Lyræ ·········	9·2	26·2	43·2	0·3	17·3	30 43·24	+ 0·08	41·67	+41·64	18 31 24·96
	γ Aquilæ ·········	21·0	34·4	48·2	1·7	15·1	37 48·08	+ 0·30	41·65	+41·66	19 38 30·04
	α Aquilæ ·········	40·2	53·7	7·2	20·5	34·2	42 7·16	+ 0·31	41·69	+41·67	19 42 49·14
	β Aquilæ ·········	9·0	22·3	35·7	49·0	2·4	46 35·68	+ 0·32	41·79	+41·67	19 47 17·67
	σ Capricorni ·········	47·6	1·7	15·8	30·0	44·1	9 15·84	+ 0·45	·········	+41·67	20 9 57·96
	ψ Capricorni ·········	13·4	28·0	42·8	57·8	12·3	35 42·86	+ 0·49	·········	+41·69	20 36 25·04
	Moon 1 Limb ·········	31·8	46·9	2·0	16·8	31·8	52 1·86	+ 0·49	·········	+41·69	20 52 44·04
	ζ Capricorni ·········	9·4	24·0	38·2	52·8	7·1	16 38·30	+ 0·47	·········	+41·70	21 17 20·47
	γ Capricorni ·········	52·3	6·3	20·3	34·3	48·3	30 20·30	+ 0·43	·········	+41·71	21 31 2·44
	Uranus ·········	11·6	25·2	38·8	52·3	5·9	18 38·76	+ 0·41	·········	+41·72	22 19 20·89
	Ceres ·········	44·4	58·9	12·8	26·7	40·8	42 12·72	+ 0·45	·········	+41·76	23 42 54·93
Aug. 25	α Ursæ Minor. S. P. ···	······	······	33·0	40·0	······	0 33·57	+14·71	·········	+42·06	13 1 30·34
	···········*Microm.* ····	······	······	······	36·5	······					
	α Pegasi ·········	28·1	42·1	55·5	9·6	23·1	55 55·68	+ 0·27	+42·28	+42·28	··············
Aug. 26	Sun 1 Limb ·········	······	38·2	······	······	18·8	18 51·74	+ 0·29	·········	+42·25	10 19 34·28
	Sun 2 Limb ·········	······	······	······	······	28·3	21 1·21	+ 0·29	·········	+42·25	10 21 43·75
	α Ursæ Minor. S. P. ···	19·5	······	30·5	39·0	45·0	0 32·07	+14·71	·········	+42·24	13 1 29·02
	···········*Microm.* ····	······	28·0	······	36·5	······					
	α Ophiuchi ·········	11·6	25·2	38·8	52·4	6·1	26 38·82	+ 0·28	+41·96	+42·22	17 27 21·32
	ι Herculis ·········	31·2	50·3	9·7	29·0	47·9	34 9·62	0·00	·········	+42·22	17 34 51·84
	α Lyræ ·········	8·7	25·7	43·0	0·1	16·8	30 42·86	+ 0·08	42·02	+42·22	18 31 25·16
	γ Aquilæ ·········	20·3	34·0	47·7	0·8	14·4	37 47·44	+ 0·30	42·27	+42·23	19 38 29·97
	α Aquilæ ·········	39·4	53·1	6·4	19·8	33·3	42 6·40	+ 0·31	42·44	+42·23	19 42 48·94

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Aug. 26	β Aquilæ	8·3	21·8	35·0	48·4	1·8	46 35·06	+ 0·32	+42·40	+42·23	19 47 17·61
Aug. 27	Sun 1 Limb	4·1	17·7	31·2	44·8	58·3	22 31·22	+ 0·30	....	+42·42	10 23 13·94
	Mercury 1 Limb	53·9	7·3	20·8	......	......	12 20·77	+ 0·32	....	+42·43	11 13 3·52
	α Ursæ Minor. S. P.	......	25·5	33·0	41·0	48·0	0 33·45	+14·71	....	+42·45	13 1 30·61
	Microm.	......	30·0	......	36·0	......					
	α Bootis	0·8	15·0	29·3	43·3	57·4	7 29·16	+ 0·23	+42·22	+42·47	14 8 11·86
	ι Herculis	30·8	50·1	9·3	28·5	47·6	34 9·26	0·00	....	+42·51	17 34 51·77
	δ Ursæ Minoris	11·5	56·0	40·5	23·5	7·0	24 39·89	– 6·11	....	+42·52	18 25 16·30
	Microm.	......	49·0	......	31·5	......					
	α Lyræ	8·3	25·3	42·3	59·3	16·3	30 42·30	+ 0·08	42·56	+42·52	18 31 24·90
	γ Aquilæ	20·2	33·7	47·2	0·8	14 2	37 47·22	+ 0·30	42·49	+42·53	19 38 30·05
	α Aquilæ	39·3	52·7	6·2	19·7	33·1	42 6·20	+ 0·31	42·64	+42·54	19 42 49·05
	β Aquilæ	8·1	21·4	34·7	48·2	1·4	46 34·76	+ 0·32	42·70	+42·54	19 47 17·62
	λ Ursæ Minoris	19·5	8·5	54·5	38·5	23·0	24 53·02	–18·47	....	+42·54	20 25 17·09
	Microm.	......	31·5	......	15·0	......					
	Pallas	7·2	20·9	34·3	47·8	1·3	50 34·30	+ 0·30	....	+42·55	20 51 17·15
	Uranus	43·6	57·2	10·8	24·4	37·9	18 10·78	+ 0·41	....	+42·56	22 18 53·75
	φ Aquarii	42·2	55·7	9·1	22·6	36·0	5 9·12	+ 0·39	....	+42·57	23 5 52·08
	ψ³ Aquarii	17·8	31·3	45·0	58·4	12·0	9 44·90	+ 0·41	....	+42·57	23 10 27·88
	Ceres	36·6	51·2	5·3	19·4	33·3	40 5·16	+ 0·45	....	+42·58	23 40 48·19
	Moon 2 Limb	5·3	19·3	32·8	46·3	50·9	46 32·72	+ 0·38	....	+42·58	23 47 15·68
Aug. 29	Sun 1 Limb	......	35·1	48·4	1·9	15·3	29 48·42	+ 0·30	....	+42·96	10 30 31·68
	Sun 2 Limb	30·5	44·0	57·3	11·2	24·5	31 57·50	+ 0·30	....	+42·96	10 32 40·76
	Mercury 1 Limb	13·0	26·3	39·6	53·1	6·6	24 39·72	+ 0·33	....	+42·97	11 25 23·02
	α Ursæ Minor. S. P.	18·5	25·5	34·0	40·5	......	0 33·25	+14·71	....	+42·99	13 1 30·95
	Microm.	......	29·5	......	36·5	......					
	ι Herculis	30·4	49·7	8·9	28·0	47·2	34 8·83	0·00	....	+43·04	17 34 51·87
	Microm.	......	59·3	......	18·3	......					
	δ Ursæ Minoris	11·0	54·5	38·5	23·5	6·0	24 38·82	– 6·11	....	+43·05	18 25 15·76
	Microm.	......	47·5	......	30·5	......					
	α Lyræ	7·7	24·8	41·8	59·0	15·8	30 41·82	+ 0·08	+43·00	+43·05	18 31 24·95
	γ Aquilæ	19·6	33·2	46·6	0·3	13·6	37 46·66	+ 0·30	43·03	+43·06	19 38 30·02
	α Aquilæ	39·1	52·3	5·8	19·2	32·7	42 5·82	+ 0·31	43·00	+43·06	19 42 49·19
	β Aquilæ	7·6	21·0	34·3	47·8	1·0	46 34·34	+ 0·32	43·10	+43·06	19 47 17·72
	α² Capricorni	48·8	2·4	16·1	29·8	43·3	8 16·08	+ 0·42	43·16	+43·07	20 8 59·57
	λ Ursæ Minoris	20·5	7·5	53·5	38·0	22·0	24 52·88	–18·47	....	+43·07	20 25 17·48
	Microm.	......	33·0	......	15·0	......					
	Pallas	50·8	4·2	17·7	31·0	44·5	49 17·64	+ 0·30	....	+43·08	20 50 1·02
	Uranus	25·0	38·4	52·0	5·6	19·3	17 52·06	+ 0·41	....	+43·10	22 18 35·57
	Ceres	7·8	22·0	36·1	50·2	4·3	38 36·08	+ 0·45	....	+43·12	23 39 19·65
Aug. 30	α Lyræ	7·3	24·4	41·4	58·7	15·3	30 41·42	+ 0·08	+43·38	+43·38	....
Aug. 31	Sun 1 Limb	......	......	4·8	18·4	31·7	37 4·81	+ 0·31	....	+43·67	10 37 48·79
	Sun 2 Limb	46·3	0·0	......	......	......	39 13·38	+ 0·31	....	+43·67	10 39 57·36
Sept. 1	Sun 1 Limb	15·3	28·5	42·1	55·7	9·2	40 42·16	+ 0·31	....	+44·10	10 41 26·57
	Sun 2 Limb	24·0	......	......	......	......	42 50·95	+ 0·31	....	+44·10	10 43 35·36
	Mercury 1 Limb	58·7	11·7	25·3	38·7	52·0	42 25·28	+ 0·34	....	+44·12	11 43 9·74
	α Ursæ Minor. S. P.	22·5	29·0	35·5	42·5	48·5	0 35·50	+14·71	....	+44·14	13 1 34·35
	Microm.	......	33·0	......	38·0	......					
	γ Aquilæ	18·4	32·0	45·4	58·8	12·5	37 45·42	+ 0·30	+44·24	+44·26	19 38 29·98
	α Aquilæ	37·4	50·9	4·5	17·9	31·6	42 4·46	+ 0·31	44·33	+44·26	19 42 49·03
	β Aquilæ	6·3	19·8	33·2	46·6	59·9	46 33·16	+ 0·32	44·25	+44·26	19 47 17·74
	α² Capricorni	47·5	1·4	14·9	28·5	42·2	8 14·90	+ 0·42	44·32	+44·26	20 8 59·58
	Uranus	......	......	24·0	37·7	51·3	17 24·09	+ 0·41	....	+44·26	22 18 8·76

Date.	OBJECT OBSERVED.	Wire. I.	Wire. II.	Wire. III.	Wire. IV.	Wire. V.	Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock observed.	Correction of Clock interpolated.	Apparent Right Ascension observed.
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Sept. 1	α Pegasi ······ ·······	26·4	40·2	53·8	7·4	21·2	55 53·80	+ 0·27	+ 44·22	+ 44·26	22 56 38·33
	Ceres········· ········	48·5	2·8	17·0	31·2	45·0	36 16·90	+ 0·45	··········	+ 44·25	23 37 1·60
Sept. 2	Sun 1 Limb···········	52·7	6·2	19·7	33·0	46·3	44 19·58	+ 0·31	··········	+ 44·20	10 45 4·09
	Sun 2 Limb···········	1·2	14·7	28·1	41·8	55·1	46 28·18	+ 0·31	··········	+ 44·20	10 47 12·69
	α Ursæ Minor. S. P.···	······	28·5	35·0	42·0	······	0 35·51	+ 14·71	··········	+ 44·19	13 1 34·41
	···········*Microm.* ····	······	33·0	······	37·5	······					
	α Bootis ···············	59·0	13·2	27·2	41·3	55·4	7 27·22	+ 0·23	+ 44·09	+ 44·19	14 8 11·64
	α Ophiuchi············	9·4	23·0	36·5	50·3	4·0	26 36·64	+ 0·28	44·03	+ 44·17	17 27 21·09
	ι Herculis··············	29·2	48·4	7·6	26·8	45·9	34 7·58	0·00	··········	+ 44·17	17 34 51·75
	δ Ursæ Minoris········	7·5	51·0	34·5	19·5	2·0	24 34·89	− 6·11	··········	+ 44·17	18 25 12·95
	···········*Microm.* ····	······	43·0	······	26·5	······					
	α Lyræ·················	6·4	23·4	40·4	57·5	14·4	30 40·42	+ 0·08	44·31	+ 44·17	18 31 24·67
	γ Aquilæ ··············	18·4	32·0	45·5	59·1	12·5	37 45·50	+ 0·30	44·14	+ 44·16	19 38 29·96
	α Aquilæ···············	37·8	51·2	4·7	18·2	31·6	42 4·70	+ 0·31	44·08	+ 44·16	19 42 49·17
	τ Tauri ················	12·7	27·3	41·8	56·2	10·4	31 41·68	+ 0·21	··········	+ 44·23	4 32 26·12
	Moon 2 Limb··········	29·4	44·6	59·8	14·8	29·8	47 59·68	+ 0·21	··········	+ 44·23	4 48 44·12
	β Tauri················	42·4	57·5	12·8	27·9	43·1	15 12·74	+ 0·18	44·30	+ 44·24	5 15 57·16
	ζ Tauri ················	39·1	53·4	7·6	21·8	36·2	27 7·62	+ 0·22	··········	+ 44·24	5 27 52·08
	Mars 2 Limb ··········	23·7	38·3	53·0	7·4	22·1	38 52·90	+ 0·21	··········	+ 44·25	6 39 37·36
	Venus 2 Limb········	16·6	30·4	44·2	58·1	11·8	3 44·22	+ 0·26	··········	+ 44·26	8 4 28·74
Sept. 5	Sun 1 Limb···········	43·0	56·4	10·0	23·7	36·9	55 10·00	+ 0·32	··········	+ 44·68	10 55 55·00
	Sun 2 Limb···········	51·7	5·2	18·6	32·0	45·5	57 18·60	+ 0·32	··········	+ 44·68	10 58 3·60
	α Bootis ···············	58·5	12·5	26·7	40·8	55·0	7 26·70	+ 0·23	+ 44·57	+ 44·70	14 8 11·63
	α Herculis·············	59·4	13·1	26·7	40·5	54·3	6 26·80	+ 0·27	44·65	+ 44·73	17 7 11·80
	α Ophiuchi············	8·6	22·3	35·8	49·6	3·3	26 35·92	+ 0·28	44·69	+ 44·73	17 27 20·93
	ι Herculis··············	28·3	47·5	6·7	26·0	45·2	34 6·74	0·00	··········	+ 44·73	17 34 51·47
	δ Ursæ Minoris········	5·0	50·5	34·0	18·5	1·5	24 33·96	− 6·11	··········	+ 44·74	18 25 12·59
	···········*Microm.* ···	······	42·0	······	26·0	······					
	α Lyræ·················	5·0	22·7	39·9	57·1	13·8	30 39·70	+ 0·08	44·96	+ 44·74	18 31 24·52
	α Aquilæ···············	37·1	50·5	4·1	17·4	30·8	42 3·98	+ 0·31	44·77	+ 44·75	19 42 49·04
	λ Ursæ Minoris ·······	······	2·5	43·0	34·0	······	24 46·68	− 18·48	··········	+ 44·76	20 25 12·96
	······· ····*Microm.* ····	······	24·5	······	12·0	······					
Sept. 6	Sun 2 Limb···········	28·7	41·5	54·8	8·5	22·0	0 55·10	+ 0·32	··········	+ 44·90	11 1 40·32
	Mercury 1 Limb ······	55·8	9·4	22·5	36·0	49·4	10 22·62	+ 0·36	··········	+ 44·91	12 11 7·89
	α Ursæ Minor. S. P.···	······	28·5	36·5	43·5	53·0	0 36·92	+ 14·72	··········	+ 44·92	13 1 36·56
	···········*Microm.* ····	······	34·5	······	39·0	······					
	α Bootis····· ···········	58·2	12·3	26·5	40·5	54·6	7 26·42	+ 0·23	+ 44·84	+ 44·93	14 8 11·58
	δ Ursæ Minoris········	5·0	······	······	17·0	58·5	24 32·30	− 6·11	··········	+ 44·97	18 25 11·16
	α Aquarii ··············	12·2	25·5	38·8	······	······	56 38·80	+ 0·36	45·00	+ 45·02	21 57 24·18
	α Pegasi ················	25·4	39·2	53·0	6·8	20·4	55 52·96	+ 0·27	45·10	+ 45·03	22 56 38·26
Sept. 7	Ceres····················	55·6	9·8	24·0	38·3	52·3	31 24·00	+ 0·45	··········	+ 45·41	23 32 9·86
Sept. 12	Sun 1 Limb···········	54·3	7·8	21·3	34·7	48·1	20 21·24	+ 0·12	··········	+ 47·05	11 21 8·41
	Sun 2 Limb········· ··	2·3	15·8	29·3	42·7	56·0	22 29·22	+ 0·12	··········	+ 47·05	11 23 16·39
	α Pegasi ············ ···	23·5	37·4	51·1	4·7	18·3	55 51·00	+ 0·09	+ 47·23	+ 47·23	···············
Sept. 13	α Ophiuchi ············	5·6	19·3	33·0	46·8	0·4	26 33·02	+ 0·10	+ 47·64	+ 47·75	17 27 20·87
	δ Ursæ Minoris········	1·0	43·5	24·0	10·0	53·0	24 26·10	− 3·81	··········	+ 47·77	18 25 10·06
	···········*Microm.* ····	······	34·0	······	17·0	······					
	α Lyræ·················	2·7	19·7	36·8	54·0	11·0	30 36·84	− 0·02	47·74	+ 47·78	18 31 24·60
	γ Aquilæ ··············	14·8	28·4	41·9	55·4	8·8	37 41·86	+ 0·10	47·85	+ 47·80	19 38 29·76
	α Aquilæ ··············	34·1	47·6	1·1	14·4	27·9	42 1·02	+ 0·11	47·83	+ 47·80	19 42 48·93
	β Aquilæ ··············	2·7	16·3	29·7	43·0	56·3	46 29·60	+ 0·11	47·90	+ 47·80	19 47 17·51

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Sept. 13	λ Ursæ Minoris	......	47·0	29·0	15·5	......	24 29·58	−11·43	....	+47·82	20 25 5·97
	............*Microm.*	......	8·0	......	50·5	......					
	Pallas	13·0	26·4	39·8	53·2	6·5	41 39·78	+ 0·11	....	+47·82	20 42 27·71
	Uranus	8·0	21·5	35·2	48·8	2·2	15 35·14	+ 0·16	....	+47·85	22 16 23·15
	Ceres	51·3	5·5	19·8	33·8	48·1	26 19·70	+ 0·18	....	+47·88	23 27 7·76
Sept. 14	α Ursæ Minor. S.P.	28·0	......	41·0	49·0	58·0	0 42·20	+ 9·01	....	+48·14	13 1 39·35
	............*Microm.*	......	38·0	......	44·5	......					
	α Bootis	55·2	9·1	23·2	37·2	51·2	7 23·18	+ 0·07	+48·16	+48·16	....
Sept. 15	δ Ursæ Minoris	55·0	39·0	24·5	8·0	52·0	24 23·89	− 3·81	....	+48·96	18 25 9·04
	............*Microm.*	......	32·0	......	16·5	......					
	α Lyræ	1·4	18·5	35·5	52·6	9·6	30 35·52	− 0·02	+49·01	+48·96	18 31 24·46
	γ Aquilæ	13·7	27·2	40·7	54·2	7·8	37 40·72	+ 0·10	48·97	+48·99	19 38 29·81
	α Aquilæ	33·0	46·3	59·8	13·3	26·8	41 59·84	+ 0·11	48·99	+48·99	19 42 48·94
	β Aquilæ	1·8	15·2	28·5	42·0	55·3	46 28·56	+ 0·11	48·91	+48·99	19 47 17·66
	α^2 Capricorni	43·0	56·5	10·3	24·0	37·7	8 10·30	+ 0·16	49·06	+49·00	20 8 59·46
	λ Ursæ Minoris	......	38·0	26·0	12·0	......	24 23·78	−11·43	....	+49·00	20 25 1·35
	............*Microm.*	......	0·0	......	45·0	......					
Sept. 16	α Ursæ Minor. S.P.	26·0	......	......	......	......	0 41·95	+ 9·01	....	+49·28	13 1 40·24
	............*Microm.*	......	38·0	......	......	......					
	Mercury 1 Limb	30·1	44·3	......	......	......	0 57·43	+ 0·15	....	+49·28	13 1 46·86
	α Bootis	53·9	8·0	22·1	36·1	50·2	7 22·06	+ 0·07	+49·26	+49·30	14 8 11·43
	α Coronæ borealis	26·0	41·0	56·1	11·2	26·2	26 56·10	+ 0·04	49·25	+49·32	15 27 45·46
	α Serpentis	56·3	9·6	23·0	36·3	49·5	35 22·94	+ 0·11	49·49	+49·32	15 36 12·37
	Moon 1 Limb	33·0	48·3	3·4	18·2	33·2	6 3·22	+ 0·20	....	+49·33	16 6 52·75
	α Herculis	55·0	8·5	22·3	35·7	49·2	6 22·14	+ 0·09	49·31	+49·36	17 7 11·59
	δ Ursæ Minoris	56·0	39·0	23·0	6·5	50·0	24 22·89	− 3·81	....	+49·40	18 25 8·48
	............*Microm.*	......	31·5	......	14·0	......					
	α Lyræ	1·2	18·2	35·1	52·2	9·2	30 35·18	− 0·02	49·32	+49·40	18 31 24·56
Sept. 17	Sun 1 Limb	49·1	2·5	15·8	29·1	42·4	38 15·78	+ 0·12	....	+49·90	11 39 5·80
	Sun 2 Limb	57·1	10·4	23·7	37·0	50·4	40 23·72	+ 0·12	....	+49·90	11 41 13·74
	α Herculis	53·7	7·4	21·5	35·3	49·0	6 21·38	+ 0·09	+50·05	+50·06	17 7 11·53
	Moon 1 Limb	13·5	29·0	44·8	0·4	15·8	8 44·70	+ 0·21	....	+50·06	17 9 34·97
	α Ophiuchi	3·3	17·0	30·7	44·4	57·8	26 30·64	+ 0·10	49·95	+50·07	17 27 20·81
	δ Ursæ Minoris	54·0	37·5	21·5	6·0	49·0	24 21·67	− 3·81	....	+50·10	18 25 7·96
	............*Microm.*	......	30·5	......	13·0	......					
	α Lyræ	0·2	17·3	34·3	51·3	8·3	30 34·28	− 0·02	50·20	+50·10	18 31 24·36
	α^2 Capricorni	41·7	55·5	9·2	22·8	36·2	8 9·08	+ 0·16	50·26	+50·14	20 8 59·38
	α Cygni	25·0	43·7	2·5	21·3	39·8	35 2·46	− 0·06	50·07	+50·15	20 35 52·55
	Pallas	50·3	4·0	17·2	30·6	44·1	40 17·24	+ 0·12	....	+50·15	20 41 7·51
	Uranus	32·6	46·2	59·7	13·3	26·9	14 59·74	+ 0·16	....	+50·18	22 15 50·08
	Ceres	27·7	42·0	56·3	10·5	24·8	22 56·26	+ 0·18	....	+50·21	23 23 46·65
Sept. 19	δ Ursæ Minoris	......	......	21·0	4·0	46·5	24 20·08	− 3·81	....	+51·11	18 25 7·38
	............*Microm.*	......	28·5	......	12·0	......					
	α Lyræ	59·2	16·2	33·3	50·3	7·2	30 33·24	− 0·02	+51·19	+51·11	18 31 24·33
	σ Sagittarii	......	1·3	15·9	31·1	45·5	44 16·02	+ 0·19	....	+51·12	18 45 7·33
	ζ Sagittarii	50·0	5·6	20·4	36·2	51·2	51 20·68	+ 0·21	....	+51·12	18 52 12·01
	Moon 1 Limb	48·4	4·2	19·8	35·3	50·8	21 19·70	+ 0·21	....	+51·13	19 22 11·04
	γ Aquilæ	11·6	25·1	38·4	52·0	5·5	37 38·52	+ 0·10	51·11	+51·14	19 38 29·76
	α Aquilæ	30·8	44·1	57·7	11·1	24·4	41 57·62	+ 0·11	51·15	+51·14	19 42 48·87
	59 Sagittarii	33·5	48·7	3·5	18·4	33·4	46 3·50	+ 0·20	....	+51·14	19 46 54·84
	α^2 Capricorni	40·7	54·4	8·2	21·9	35·4	8 8·12	+ 0·16	51·19	+51·15	20 8 59·43
	α Cygni	24·0	42·7	1·5	20·2	38·8	35 1·44	− 0·06	51·05	+51·16	20 35 52·54
	Uranus	15·4	29·0	42·5	56·1	9·8	14 42·56	+ 0·16	....	+51·20	22 15 33·92

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Sept. 20	α Ursæ Minor. S. P.····	24·5	......	41·0	48·5	56·5	0 40·80	+ 9·01	....	+ 51·56	13 1 41·37
	............*Microm.* ····	......	......	......	44·5	......					
	α Bootis················	51·6	5·7	19·8	34·1	48·2	7 19·88	+ 0·07	+ 51·41	+ 51·59	14 8 11·54
	δ Ursæ Minoris········	......	......	......	2·0	46·0	24 18·50	− 3·81	....	+ 51·69	18 25 6·38
	............*Microm.* ····	......	27·0	......	10·5	......					
	α Lyræ················	58·7	15·9	33·0	50·0	7·0	30 32·92	− 0·02	51·48	+ 51·69	18 31 24·59
	γ Aquilæ ··············	10·8	24·1	37·8	51·4	4·8	37 37·78	+ 0·10	51·84	+ 51·71	19 38 29·59
	α Aquilæ··············	29·9	43·2	56·7	10·2	23·6	41 56·72	+ 0·11	52·04	+ 51·71	19 42 48·54
	59 Sagittarii ··········	33·0	47·8	2·9	17·7	32·8	46 2·84	+ 0·20	....	+ 51·71	19 46 54·75
	α^2 Capricorni··········	40·2	54·0	7·8	21·3	34·8	8 7·62	+ 0·16	51·68	+ 51·72	20 8 59·50
	Moon 1 Limb··········	59·3	14·7	29·8	44·9	0·1	26 29·76	+ 0·20	....	+ 51·72	20 27 21·68
	Uranus················	......	20·4	34·0	47·8	1·4	14 34·11	+ 0·16	....	+ 51·75	22 15 26·02
	Ceres················	57·5	12·0	26·3	40·8	54·8	20 26·28	+ 0·18	....	+ 51·76	23 21 18·22
Sept. 21	α Lyræ················	58·3	15·5	32·5	49·7	6·8	30 32·56	− 0·02	+ 51·82	+ 52·05	18 31 24·59
	β Aquilæ ··············	58·5	11 9	25·2	38·5	51·8	46 25·18	+ 0·11	52·21	+ 52·07	19 47 17·36
	α Cygni················	23·3	42·0	0·5	19·2	38·0	35 0·60	− 0·06	51·85	+ 52·08	20 35 52·62
	η Capricorni············	45·4	59·3	13·7	......	......	54 13·67	+ 0·18	....	+ 52·09	20 55 5·94
	ζ Capricorni ············	59·0	13·3	27·7	42·2	56·5	16 27·74	+ 0·18	....	+ 52·10	21 17 20·02
	Moon 1 Limb··········	43·8	58·2	13·0	27·8	42·5	28 13·06	+ 0·19	....	+ 52·10	21 29 5·35
	θ Aquarii··············	53·5	7·3	20·8	34·0	47·3	7 20·58	+ 0·15	....	+ 52·12	22 8 12·85
	Uranus················	......	12·5	26·0	39·7	53·0	14 26·01	+ 0·16	....	+ 52·12	22 15 18·29
	α Pegasi ··············	18·4	32·1	45·8	59·5	13·3	55 45·82	+ 0·09	52·46	+ 52·14	22 56 38·05
	Ceres ··· ··············	......	......	37·3	51·5	6·0	19 37·32	+ 0·18	....	+ 52·14	23 20 29·64
Sept. 23	α Aquarii ··············	4·2	17·5	30·7	44·2	57·4	56 30·80	+ 0·13	+ 53·18	+ 53·18	....
Sept. 24	γ Aquilæ ··············	9·3	22·8	36·2	49·8	3·3	37 36·28	+ 0·10	+ 53·27	+ 53·40	19 38 29·78
	α Aquilæ··············	28·3	41·8	55·2	8·8	22·1	41 55·24	+ 0·11	53·45	+ 53·40	19 42 48·75
	β Aquilæ··············	57·0	10·5	24·0	37·3	50·7	46 23·90	+ 0·11	53·44	+ 53·40	19 47 17·41
	α Cephei··············	51·5	20·3	48·7	18·1	46·3	13 48·98	− 0·25	....	+ 53·41	21 14 42·14
	β Cephei··············	23·4	2·0	40·6	19·3	57·7	25 40·59	− 0·45	....	+ 53·42	21 26 33·56
	.... *Microm.* ····	......	21·3	......	59·8	......					
	α Aquarii··············	3·9	17·3	30·6	43·9	57·3	56 30·60	+ 0·13	53·38	+ 53·42	21 57 24·15
	Uranus················	34·5	48·3	1·9	15·4	29·9	14 2·00	+ 0·16	....	+ 53·43	22 14 55·59
	27 Piscium············	58·8	12·0	25·4	38·8	52·2	49 25·44	+ 0·14	....	+ 53·45	23 50 19·03
	33 Piscium············	38·3	52·0	5·4	18·8	32·2	56 5·34	+ 0·15	....	+ 53·45	23 56 58·94
	γ Pegasi ··············	29·4	43·2	57·2	10·8	24·5	3 57·02	+ 0·09	53·53	+ 53·45	0 4 50·56
	(*a*) Moon 1 Limb··········	35·7	49·5	3·3	17·0	30·8	11 3·26	+ 0·15	....	+ 53·46	0 11 56·87
	20 Ceti ················	20·0	33·2	46·5	59·8	13·2	43 46·54	+ 0·14	....	+ 53·46	0 44 40·14
Sept. 28	Sun 1 Limb············	......	......	......	58·0	11·5	17 44·74	+ 0·14	....	+ 54·70	12 18 39·58
	Sun 2 Limb············	26·3	39·6	53·0	6·3	19·7	19 52·98	+ 0·14	....	+ 54·70	12 20 47·82
	α Cygni················	20·0	38·8	57·5	16·3	34·8	34 57·48	− 0·06	+ 54·82	+ 54·82	20 35 52·24
	α Cephei ··············	50·5	18·7	47·0	15·4	43·2	13 46·94	− 0·25	....	+ 54·83	21 14 41·52
	............*Microm.* ····	......	33·0	......	0·8	......					
	α Pegasi ··············	15·8	29·7	43·4	57·2	11·0	55 43·42	+ 0·09	54·86	+ 54·84	22 56 38·35
Sept. 29	α Ursæ Minor. S. P.····	......	30·0	......	......	......	0 38·20	+ 9·02	....	+ 54·86	13 1 42·08
	............*Microm.* ····	......	34·5	......	......	......					
	δ Ursæ Minoris········	......	27·0	10·5	55·0	38·0	24 10·60	− 3·81	....	+ 54·86	18 25 1·65
	............*Microm.* ····	......	19·0	......	2·0	......					
	α Lyræ ················	55·3	12·3	29·3	46·5	3·3	30 29·34	− 0·02	+ 54·84	+ 54·86	18 31 24·18
	β Aquilæ··············	55·7	8·9	22·4	35·8	49·2	46 22·40	+ 0·11	54·87	+ 54·87	19 47 17·38
Sept. 30	Sun 1 Limb····· ······	......	......	58·0	11·4	24·8	24 58·05	+ 0·14	....	+ 55·09	12 25 53·28
	Sun 2 Limb············	40·0	53·4	6·7	20·0	33·2	27 6·66	+ 0·14	....	+ 55·09	12 28 1·89
	α Ursæ Minor. S. P.····	......	......	......	48·0	......	0 40·40	+ 9·02	....	+ 55·10	13 1 44·52

(*a*) 0^{s}·02 to be subtracted from Apparent Right Ascension observed for defect of illuminated disc. Limb 2 obscured by clouds.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Sept. 30	δ Ursæ Minoris	42·0	26·0	……	……	……	24 9·75	− 3·81	………	+ 55·17	18 25 1·11
	α Lyræ	55·1	12·2	29·0	46·2	3·2	30 29·14	− 0·02	+ 55·01	+ 55·18	18 31 24·30
	γ Aquilæ	7·3	20·8	34·3	47·8	1·3	37 34·30	+ 0·10	55·16	+ 55·19	19 38 29·59
	α Aquilæ	26·5	40·0	53·4	7·1	20·3	41 53·46	+ 0·11	55·14	+ 55·19	19 42 48·76
	β Aquilæ	55·0	8·5	22·0	35·3	48·7	46 21·90	+ 0·11	55·35	+ 55·19	19 47 17·20
	α² Capricorni	36·4	50·3	4·0	17·6	31·1	8 3·88	+ 0·16	55·29	+ 55·19	20 8 59·23
	α Cephei	50·0	18·3	46·8	15·0	43·0	13 46·61	− 0·25	………	+ 55·19	21 14 41·55
	Microm.	……	32·7	……	0·5	……					
	β Cephei	20·6	59·3	38·0	16·8	55·5	25 38·06	− 0·45	………	+ 55·19	21 26 32·80
	Microm.	……	19·0	……	57·2	……					
	Uranus	50·0	3·7	17·0	30·5	44·0	13 17·04	+ 0·16	………	+ 55·19	22 14 12·39
	Ceres	14·5	28·9	43·4	57·5	11·7	12 43·20	+ 0·18	………	+ 55·19	23 13 38·57
Oct. 2	α Canis Majoris	33·3	47·0	1·3	14·8	28·7	37 1·02	+ 0·17	+ 55·32	+ 55·23	6 37 56·42
	ω¹ Geminorum	2·1	16·8	31·4	46·2	0·7	51 31·44	+ 0·05	………	+ 55·23	6 52 26·72
	Moon 2 Limb	13·0	28·3	43·6	59·2	14·3	9 43·68	+ 0·04	………	+ 55·23	7 10 38·95
	α Geminor. preceding	42·3	……	13·7	……	44·8	23 13·60	+ 0·02	55·22	+ 55·23	7 24 8·85
	α Geminor. following	……	58·3	……	29·5	……	23 13·90	+ 0·02		+ 55·23	7 24 9·15
	β Geminorum	52·7	7·5	22·8	37·6	52·8	34 22·68	+ 0·04	55·15	+ 55·23	7 35 17·95
	Mars 2 Limb	38·8	53·3	7·7	21·9	36·4	55 7·62	+ 0·06	………	+ 55·23	7 56 2·91
	Jupiter 1 Limb	24·5	……	52·4	……	20·3	59 52·40	+ 0·08	………	+ 55·24	9 0 47·72
	Jupiter 2 Limb	……	40·7	……	8·7	……	59 54·70	+ 0·08	………	+ 55·24	9 0 50·02
Oct. 3	α Ursæ Minor. S. P.	……	29·5	……	……	56·5	0 39·08	+ 9·02	………	+ 55·26	13 1 43·36
	Microm.	……	36·0	……	42·0	……					
Oct. 4	Sun 1 Limb	……	……	29·0	42·4	55·7	39 28·99	+ 0·14	………	+ 55·41	12 40 24·54
	Sun 2 Limb	11·2	24·5	37·9	51·3	4·7	41 37·92	+ 0·14	………	+ 55·41	12 42 33·47
	α Ursæ Minor. S. P.	……	……	……	47·0	……	0 39·20	+ 9·02	………	+ 55·41	13 1 43·63
	α Coronæ borealis	19·8	34·6	49·7	4·7	19·6	26 49·68	+ 0·04	+ 55·41	+ 55·42	15 27 45·14
	δ Ursæ Minoris	42·0	26·0	9·0	53·5	36·0	24 9·46	− 3·81	………	+ 55·44	18 25 1·09
	Microm.	……	17·5	……	1·0	……					
	α Lyræ	54·6	11·8	28·8	45·8	2·8	30 28·73	− 0·02	55·33	+ 55·44	18 31 24·15
	Microm.	……	20·2	……	37·1	……					
	γ Aquilæ	7·0	20·5	34·0	47·5	1·0	37 34·00	+ 0·10	55·39	+ 55·45	19 38 29·55
	α Aquilæ	26·1	39·5	53·1	6·6	20·0	41 53·06	+ 0·11	55·48	+ 55·45	19 42 48·62
	β Aquilæ	54·8	8·2	21·6	35·1	48·3	46 21·60	+ 0·11	55·59	+ 55·46	19 47 17·17
	Uranus	23·5	37·3	50·8	4·4	17·9	12 50·78	+ 0·16	………	+ 55·49	22 13 46·43
	γ Cancri	23·9	38·4	52·8	7·4	21·8	32 52·86	+ 0·06	………	+ 55·62	8 33 48·54
	Moon 2 Limb	32·5	47·4	2·3	17·0	31·7	57 2·18	+ 0·06	………	+ 55·62	8 57 57·86
	Jupiter 1 Limb	……	55·5	……	23·4	……	1 9·45	+ 0·08	………	+ 55·62	9 2 5·15
	Jupiter 2 Limb	43·8	……	11·8	……	39·7	1 11·77	+ 0·08	………	+ 55·62	9 2 7·47
	Venus 2 Limb	44·4	58·2	11·7	25·4	39·0	50 11·74	+ 0·10	………	+ 55·63	9 51 7·47
Oct. 5	α Aquarii	1·4	14·8	28·2	41·4	54·7	56 28·10	+ 0·13	+ 55·80	+ 55·78	21 57 24·01
	Uranus	17·3	31·0	44·4	57·8	11·4	12 44·38	+ 0·16	………	+ 55·79	22 13 40·33
	Moon 2 Limb	42·0	56·3	10·8	25·2	39·4	48 10·74	+ 0·08	………	+ 55·95	9 49 6·77
	Venus 2 Limb	41·2	54·9	8·7	22·7	36·7	54 8·84	+ 0·10	………	+ 55·95	9 55 4·89
	α Leonis	……	……	42·6	56·3	10·0	58 42·66	+ 0·10	55·92	+ 55·96	9 59 38·72
	γ Leonis	32·0	46·1	0·2	14·4	28·5	10 0·24	+ 0·06	………	+ 55·96	10 10 56·26
Oct. 6	Sun 2 Limb	28·7	41·9	55·2	8·7	22·0	48 55·30	+ 0·14	………	+ 56·00	12 49 51·44
	α Ursæ Minor. S. P.	……	29·5	……	……	……	0 37·90	+ 9·02	………	+ 56·00	13 1 42·72
	Microm.	……	34·0	……	……	……					
	δ Ursæ Minoris	40·0	23·5	7·	52·0	34·0	24 7·39	− 3·81	………	+ 56·09	18 24 59·67
	Microm.	……	16·0	……	59·0	……					
	α Lyræ	54·0	11·0	28·2	45·2	2·3	30 28·13	− 0·02	+ 55·87	+ 56·09	18 31 24·20
	Microm.	……	19·5	……	36·7	……					

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Oct. 6	γ Aquilæ	6·2	19·7	33·2	46·8	0·3	37 33·24	+ 0·10	+ 56·12	+ 56·11	19 38 29·45
	α Aquilæ	25·4	39·0	52·3	5·8	19·2	41 52·34	+ 0·11	56·17	+ 56·11	19 42 48·56
	β Aquilæ	54·2	7·5	21·0	34·4	47·8	46 20·98	+ 0·11	56·18	+ 56·11	19 47 17·20
	α^2 Capricorni	35·6	49·3	2·8	16·5	30·2	8 2·88	+ 0·16	56·20	+ 56·11	20 8 59·15
	Uranus	11·0	24·3	37·8	51·5	5·0	12 37·92	+ 0·16	....	+ 56·12	22 13 34·20
Oct. 7	Sun 1 Limb	58·5	12·0	25·4	38·8	52·2	50 25·38	+ 0·14	....	+ 56·19	12 51 21·71
	Sun 2 Limb	7·7	21·2	34·7	47·9	1·2	52 34·54	+ 0·14	....	+ 56·19	12 53 30 87
	α Ursæ Minor. S. P.	......	......	37·5	45·5	54·0	0 37·84	+ 9·02	....	+ 56·19	13 1 43·05
	Microm.	......	35·0	......	41·5	......					
	α Bootis	46·7	0·8	15·0	29·2	43·3	7 15·00	+ 0·07	+ 56·20	+ 56·20	....
Oct. 8	Sun 1 Limb	38·1	51·4	5·0	......	......	54 4·91	+ 0·15	....	+ 56·43	12 55 1·49
	Sun 2 Limb	......	......	14·3	27·5	40·9	56 14·15	+ 0·15	....	+ 56·43	12 57 10·73
	α Ursæ Minor. S. P.	......	......	38·5	47·5	55·5	0 38·90	+ 9·02	....	+ 56·43	13 1 44·35
	Microm.	......	......	......	42·0	......					
	α Bootis	......	1·2	15·4	29·6	43·8	7 15·42	+ 0·07	+ 55·78	+ 56·44	14 8 11·93
	α Cygni	17·6	36·2	55·1	14·0	32·5	34 55·08	− 0·06	56·97	+ 56·52	20 35 51·54
	α Cephei	47·7	16·2	44·3	13·0	41·5	13 44·51	− 0·25	....	+ 56·53	21 14 40·79
	Microm.	......	30·3	......	58·6	......					
	β Cephei	18·0	57·0	35·3	14·3	52·5	25 35·44	− 0·45	....	+ 56·53	21 26 31·52
	Microm.	......	16·0	......	55·0	......					
	α Andromedæ	31·2	46·2	1·4	16·4	31·4	59 1·32	+ 0·04	56·76	+ 56·58	23 59 57·94
Oct. 10	α Coronæ borealis	18·0	33·0	48·2	3·2	18·0	26 48·08	+ 0·04	+ 56·94	+ 57·25	15 27 45·37
	β Aquilæ	53·0	6·3	19·8	33·1	46·4	46 19·72	+ 0·11	57·37	+ 57·32	19 47 17·15
	α^2 Capricorni	34·2	47·8	1·3	15·0	28·8	8 1·42	+ 0·16	57·60	+ 57·32	20 8 58·90
	α Cygni	16·7	35·8	54·4	13·3	31·7	34 54·38	− 0·06	57·62	+ 57·32	20 35 51·64
	α Cephei	47·8	16·0	44·3	12·7	40·8	13 44·29	− 0·25	....	+ 57·32	21 14 41·36
	Microm.	......	30·1	......	58·3	......					
	β Cephei	18·5	57·2	36·0	14·6	53·2	25 35·90	− 0·45	....	+ 57·32	21 26 32·77
	Microm.	......	16·5	......	55·3	......					
	α Aquarii	0·2	13·6	26·7	40·1	53·3	56 26·78	+ 0·13	57·07	+ 57·32	21 57 24·23
	Uranus	47·0	0·6	14·3	27·7	41·3	12 14·18	+ 0·16	....	+ 57·32	22 13 11·66
Oct. 11	α Aquarii	0·1	13·4	26·7	39·9	53·3	56 26·68	+ 0·13	+ 57·16	+ 57·31	21 57 24·12
	α Andromedæ	30·5	45·5	0·6	15·6	30·7	59 0·58	+ 0·04	57·49	+ 57·31	23 59 57·93
	γ Pegasi	25·8	39·6	53·3	7·2	20·8	3 53·34	+ 0·09	57·27	+ 57·32	0 4 50·75
	α Ursæ Minor. S. P.	......	28·0	36·5	......	......	0 36·97	+ 9·02	....	+ 57·42	13 1 43·41
	Microm.	......	......	......	40·5	......					
Oct. 12	Sun 1 Limb	21·3	34·7	48·1	1·6	14·9	8 48·12	+ 0·15	....	+ 57·42	13 9 45·69
	Sun 2 Limb	31·3	44·7	58·1	11·6	25·0	10 58·14	+ 0·15	....	+ 57·42	13 11 55·71
	δ Ursæ Minoris	37·5	20·5	4·0	48·5	30·5	24 4·03	− 3·81	....	+ 57·46	18 24 57·68
	Microm.	......	12·0	......	55·0	......					
	α Lyræ	52·3	9·5	26·5	43·5	0·6	30 26·46	− 0·02	+ 57·40	+ 57·46	18 31 23·90
	Microm.	......	18·0	......	34·8	......					
	γ Aquilæ	4·7	18·2	31·7	45·2	58·7	37 31·70	+ 0·10	57·56	+ 57·47	19 38 29·27
	α Aquilæ	24·0	37·5	51·0	4·4	17·5	41 50·88	+ 0·11	57·53	+ 57·47	19 42 48·46
	β Aquilæ	52·8	6·2	19·5	32·8	46·2	46 19·50	+ 0·11	57·56	+ 57·47	19 47 17·08
	α Cygni	17·4	36·0	54·5	13·3	32·0	34 54·64	− 0·06	57·31	+ 57·46	20 35 52·04
	α Cephei	47·7	16·0	44·4	12·7	40·8	13 44·33	− 0·25	....	+ 57·45	21 14 41·53
	Microm.	......	30·7	......	58·0	......					
	β Cephei	18·8	57·4	36·0	15·0	53·0	25 36·00	− 0·45	....	+ 57·45	21 26 33·00
	Microm.	......	16·8	......	55·0	......					
Oct. 13	γ Aquilæ	4·8	18·3	31·7	45·4	58·8	37 31·80	+ 0·27	+ 57·27	+ 57·23	19 38 29·30
	α Aquilæ	24·2	37·4	50·9	4·3	17·8	41 50·92	+ 0·28	57·30	+ 57·23	19 42 48·43

Date.	OBJECT OBSERVED.	Wire. I.	Wire. II.	Wire. III.	Wire. IV.	Wire. V.	Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock observed.	Correction of Clock interpolated.	Apparent Right Ascension observed.
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Oct. 13	β Aquilæ	52·8	6·2	19·6	33·0	46·3	46 19·58	+ 0·29	+57·28	+57·23	19 47 17·10
	α^2 Capricorni	34·4	48·1	1·7	15·2	29·0	8 1·68	+ 0·38	57·07	+57·23	20 8 59·29
	α Cygni	17·3	36·0	54·5	13·3	31·9	34 54·60	+ 0·01	57·25	+57·24	20 35 51·85
	α Cephei	47·0	15·3	43·7	12·0	39·6	13 43·49	− 0·30	....	+57·25	21 14 40·44
	Microm.	......	29·3	......	57·5	......					
	β Cephei	18·8	57·3	35·8	14·2	52·8	25 35·77	− 0·61	....	+57·25	21 26 32·41
	Microm.	......	16·5	......	55·0	......					
	Uranus	31·5	44·8	58·3	12·2	25·6	11 58·48	+ 0·38	....	+57·26	22 12 56·12
	Ceres	29·2	43·6	58·2	11·8	25·9	4 57·74	+ 0·42	....	+57·27	23 5 55·43
	α Ursæ Minor. S. P.	......	24·5	32·0	40·0	......	0 32·35	+13·99	....	+57·44	13 1 43·78
	Microm.	......	......	......	35·0	......					
Oct. 14	Sun 1 Limb	46·1	59·8	13·2	26·7	40·0	16 13·16	+ 0·36	....	+57·44	13 17 10·96
	Sun 2 Limb	56·4	9·8	23·3	36·8	50·2	18 23·30	+ 0·36	....	+57·44	13 19 21·10
	α Coronæ borealis	17·6	32·6	47·6	2·5	17·4	26 47·54	+ 0·17	+57·34	+57·47	15 27 45·18
	α Serpentis	47·7	1·2	14·4	28·0	41·3	35 14·52	+ 0·29	57·44	+57·47	15 36 12·28
	δ Ursæ Minoris	36·5	21·0	5·0	49·0	32·0	24 4·67	− 5·80	....	+57·51	18 24 56·38
	Microm.	......	13·0	......	56·0	......					
	α Lyræ	52·3	9·3	26·3	43·3	0·4	30 26·34	+ 0·07	57·38	+57·51	18 31 23·92
	Microm.	......	18·0	......	34·8	......					
	α Cygni	16·9	35·5	54·5	13·0	31·7	34 54·36	+ 0·01	57·47	+57·53	20 35 51·90
	Microm.	......	45·1	......	3·8	......					
	α Cephei	47·3	15·6	43·9	12·2	40·4	13 43·89	− 0·30	....	+57·54	21 14 41·13
	Microm.	......	29·8	......	58·0	......					
	β Cephei	18·0	56·8	35·5	14·3	53·0	25 35·46	− 0·61	....	+57·54	21 26 32·39
	Microm.	......	16·1	......	54·5	......					
	γ Pegasi	25·0	38·8	52·5	6·3	20·0	3 52·52	+ 0·25	57·93	+57·57	0 4 50·34
	α Ursæ Minor. S. P.	15·0	22·5	30·5	39·5	49·0	0 31·00	+13·99	....	+57·73	13 1 42·72
	Microm.	......	26·0	......	35·0	......					
Oct. 15	Sun 1 Limb	29·1	42·7	56·3	9·8	23·1	19 56·20	+ 0·36	....	+57·73	13 20 54·29
	Sun 2 Limb	39·3	52·6	6·3	20·0	33·5	22 6·34	+ 0·36	....	+57·73	13 23 4·43
	Uranus	21·2	34·6	......	......	......	11 48·30	+ 0·38	....	+57·84	22 12 46·52
	α Andromedæ	29·9	45·1	0·1	15·2	30·3	59 0·12	+ 0·16	+57·82	+57·86	23 59 58·14
	γ Pegasi	25·1	38·8	52·5	6·3	20·0	3 52·54	+ 0·25	57·91	+57·86	0 4 50·65
Oct. 16	δ Ursæ Minoris	34·5	18·5	2·5	47·0	30·0	24 2·53	− 5·80	....	+58·32	18 24 55·05
	Microm.	......	10·5	......	54·5	......					
	α Lyræ	51·4	8·5	25·5	42·4	59·5	30 25·49	+ 0·07	+58·17	+58·32	18 31 23·88
	Microm.	......	17·1	......	34·0	......					
	Moon 1 Limb	52·3	7·9	23·7	39·4	54·8	1 23·62	+ 0·48	....	+58·34	19 2 22·44
	52 Sagittarii	17·3	31·8	46·5	1·2	16·0	25 46·56	+ 0·44	....	+58·35	19 26 45·35
	γ Aquilæ	3·7	17·3	30·8	44·2	57·7	37 30·74	+ 0·27	58·28	+58·35	19 38 29·36
	α Aquilæ	22·8	36·4	49·8	3·3	16·6	41 49·78	+ 0·28	58·40	+58·35	19 42 48·41
	β Aquilæ	1·5	5·0	18·3	31·8	45·2	46 18·36	+ 0·29	58·46	+58·35	19 47 17·00
	62 Sagittarii	7·1	22·2	37·2	52·3	7·4	51 37·24	+ 0·46	....	+58·36	19 52 36·06
	α^2 Capricorni	32·9	46·8	0·3	13·8	27·6	8 0·28	+ 0·38	58·43	+58·36	20 8 59·02
Oct. 17	α Coronæ borealis	......	31·0	45·7	1·0	15·5	26 45·82	+ 0·17	+59·01	+59·15	15 27 45·14 †
	α Herculis	......	58·0	11·8	25·5	39·2	6 11·75	+ 0·25	59·03	+59·18	17 7 11·18 †
	α Ophiuchi	53·5	7·3	21·0	34·5	48·0	26 20·86	+ 0·26	59·08	+59·19	17 27 20·31 †
	γ Aquilæ	2·6	16·0	29·5	43·1	56·6	37 29·56	+ 0·27	59·44	+59·22	19 38 29·05 †
	α Aquilæ	22·0	35·4	49·0	2·3	15·5	41 48·84	+ 0·28	59·32	+59·23	19 42 48·35 †
	β Aquilæ	50·6	4·1	17·5	31·0	44·2	46 17·48	+ 0·29	59·32	+59·23	19 47 17·00 †
	α Ursæ Minoris	39·0	47·0	55·0	6·5	......	0 56·45	−13·17	....	+59·32	1 1 42·60 †
	Microm.	......	53·0	......	2·0	......					
Oct. 18	Sun 1 Limb	40·4	54·2	7·4	21·0	......	31 7·49	+ 0·37	....	+59·54	13 32 7·40 †

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Oct. 18	Sun 2 Limb	51·3	5·0	......	......	......	33 18·40	+ 0·37	....	+ 59·54	13 34 18·31 †
	α Andromedæ	......	......	......	13·4	28·4	58 58·28	+ 0·16	+ 59·66	+ 59·72	23 59 58·16 †
	γ Pegasi	23·2	37·0	50·7	4·4	18·0	3 50·66	+ 0·25	59·79	+ 59·72	0 4 50·63 †
	α Ursæ Minoris	39·5	50·0	58·0	6·5	16·0	0 58·21	− 13·17	....	+ 59·74	1 1 44·78 †
	Microm.	......	55·0	......	2·0	......					
	α Ursæ Minor. S. P.	......	......	29·0	37·5	45·5	0 28·62	+ 13·99	....	+ 59·87	13 1 42·48
	Microm.	......	24·5	......	32·0	......					
Oct. 19	Sun 1 Limb	25·3	39·3	53·0	......	......	34 52·71	+ 0·37	....	+ 59·89	13 35 52·97
	Sun 2 Limb	36·8	50·5	4·0	17·5	31·0	37 3·96	+ 0·37	....	+ 59·89	13 38 4·22
	α Coronæ borealis	15·0	30·1	45·0	0·1	15·1	26 45·06	+ 0·17	+ 59·76	+ 59·93	15 27 45·16
	α Serpentis	45·3	58·6	12·0	25·4	39·0	35 12·06	+ 0·29	59·87	+ 59·93	15 36 12·28
	δ Ursæ Minoris	......	......	0·0	44·0	26·5	23 59·68	− 5·80	....	+ 60·00	18 24 53·88
	Microm.	......	8·0	......	51·5	......					
	α Lyræ	49·6	6·8	23·8	40·9	58·1	30 23·81	+ 0·07	59·79	+ 60·00	18 31 23·88
	Microm.	......	15·3	......	32·2	......					
	α Cephei	44·5	13·0	41·0	9·3	37·3	13 40·97	− 0·30	....	+ 60·04	21 14 40·71
	Microm.	......	26·7	......	55·0	......					
	β Cephei	15·0	54·0	32·4	11·3	49·8	25 32·56	− 0·61	....	+ 60·05	21 26 32·00
	Microm.	......	13·6	......	51·8	......					
	γ Capricorni	33·6	47·7	1·5	15·4	29·5	30 1·54	+ 0·41	....	+ 60·05	21 31 2·00
	δ Capricorni	32·7	46·8	0·8	14·5	28·4	37 0·64	+ 0·44	....	+ 60·05	21 38 1·10
	α Aquarii	57·0	10·3	23·4	36·7	50·2	56 23·52	+ 0·33	60·04	+ 60·06	21 57 23·91
	Moon 1 Limb	43·2	57·2	12·0	26·0	40·5	6 11·78	+ 0·43	....	+ 60·06	22 7 12·27
	Uranus	1·8	15·5	29·2	......	......	11 29·10	+ 0·38	....	+ 60·06	22 12 29·54
	τ^2 Aquarii	28·4	42·3	56·3	10·0	23·8	39 56·16	+ 0·39	....	+ 60·07	22 40 56·62
	δ Aquarii	30·6	44·4	58·2	12·3	25·8	44 58·26	+ 0·40	....	+ 60·07	22 45 58·73
	α Pegasi	9·9	23·2	37·5	51·3	5·1	55 37·40	+ 0·25	60·60	+ 60·07	22 56 37·72
	α Ursæ Minoris	37·0	48·0	54·0	4·0	14·0	0 55·50	− 13·17	....	+ 60·10	1 1 42·43 †
	Microm.	......	51·5	......	59·5	......					
	α Ursæ Minor. S. P.	15·0	22·5	30·0	39·5	47·5	0 30·79	+ 13·99	....	+ 60·28	13 1 45·06
	Microm.	......	27·0	......	34·5	......					
Oct. 20	Sun 1 Limb	11·5	25·0	38·4	52·0	5·5	38 38·48	+ 0·37	....	+ 60·29	13 39 39·14
	Sun 2 Limb	22·5	36·2	49·8	3·2	16·8	40 49·70	+ 0·37	....	+ 60·29	13 41 50·36
	α Ophiuchi	52·3	5·9	19·5	33·2	46·8	26 19·54	+ 0·26	+ 60·36	+ 60·35	17 27 20·15
	(*a*) δ Ursæ Minoris	29·5	14·0	58·5	42·0	25·5	24 58·17	− 5·80	....	+ 0·37	18 24 52·74
	Microm.	......	7·0	......	50·5	......					
	α Lyræ	49·1	6·2	23·2	40·3	57·2	31 23·20	+ 0·07	0·37	+ 0·38	18 31 23·65
Oct. 21	α Cephei	43·6	11·8	40·0	8·0	36·0	14 39·89	− 0·30	....	+ 1·20	21 14 40·79
	Microm.	......	26·0	......	53·8	......					
	β Cephei	14·0	52·8	31·3	9·8	48·3	26 31·21	− 0·61	....	+ 1·20	21 26 31·80
	Microm.	......	12·0	......	50·3	......					
	α Aquarii	55·7	9·0	22·3	......	......	57 22·30	+ 0·33	+ 1·23	+ 1·22	21 57 23·85
	α Pegasi	9·4	23·2	36·8	50·4	4·3	56 36·82	+ 0·25	1·16	+ 1·25	22 56 38·32
	Moon 1 Limb	23·5	37·1	50·8	4·7	18·2	51 50·86	+ 0·36	....	+ 1·27	23 51 52·49
	α Andromedæ	26·2	41·4	56·6	11·8	26·9	59 56·58	+ 0·16	1·35	+ 1·27	23 59 58·01
	44 Piscium	34·3	47·8	1·0	14·5	27·8	17 1·08	+ 0·32	....	+ 1·28	0 17 2·68
	α Ursæ Minoris	36·0	46·0	55·5	3·0	......	1 54·42	− 13·17	....	+ 1·30	1 1 42·55
	Microm.	......	50·5	......	59·0	......					
Oct. 22	α Pegasi	8·7	22·4	36·2	49·9	3·5	56 36·14	+ 0·25	+ 1·84	+ 1·84	....
	α Ursæ Minoris	......	43·0	52·0	2·0	10·5	1 52·03	− 13·18	....	+ 1·90	1 1 40·75
	Microm.	......	47·5	......	55·5	......					
Oct. 23	γ Pegasi	20·3	34·1	47·8	1·7	15·2	4 47·82	+ 0·25	+ 2·61	+ 2·61	0 4 50·68
	80 Piscium	29·0	42·2	55·5	9·0	22·3	59 55·60	+ 0·30	....	+ 2·64	0 59 58·54

(*a*) Clock put forward one minute.

Date.	OBJECT OBSERVED.	Wire. I.	Wire. II.	Wire. III.	Wire. IV.	Wire. V.	Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock observed.	Correction of Clock interpolated.	Apparent Right Ascension observed.
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Oct. 23	α Ursæ Minoris	34·0	45·0	51·0	1·5	8·5	1 52·36	−13·18	....	+ 2·64	1 1 41·82
	............*Microm.*	......	49·5	......	56·5	......					
	Moon 1 Limb..........	8·6	22·2	35·8	49·5	3·3	29 35·88	+ 0·29	....	+ 2·65	1 29 38·82
	α Arietis................	27·8	42·4	56·8	11·3	25·7	57 56·80	+ 0·19	+ 2·66	+ 2·66	1 57 59·65
	ξ^1 Ceti..................	52·2	5·5	19·2	32·5	46·0	4 19·08	+ 0·28	....	+ 2·67-	2 4 22·03
	α Ursæ Minor. S. P....	......	......	......	......	45·5	1 26·70	+14·00	....	+ 2·96	13 1 43·66 †
	............*Microm.*	......	......	......	29·5	......					
Oct. 24	δ Ursæ Minoris........	25·5	10·0	54·0	38·5	21·5	24 53·96	− 5·80	....	+ 3·11	18 24 51·27
	............*Microm.*	......	2·5	......	45·5	......					
	α Lyræ.......	46·4	3·4	20·4	37·5	54·4	31 20·44	+ 0·07	+ 3·05	+ 3·11	18 31 23·62
	............*Microm.*	......	12·0	......	29·0	......					
	γ Aquilæ................	58·9	12·4	25·8	39·3	52·6	38 25·80	+ 0·27	3·09	+ 3·14	19 38 29·21
	α Aquilæ	17·9	31·3	44·8	58·3	11·8	42 44·82	+ 0·28	3·23	+ 3·14	19 42 48·24
	β Aquilæ	47·0	0·2	13·5	26·8	40·2	47 13·54	+ 0·29	3·15	+ 3·15	19 47 16·98
	β Cephei	11·8	49·9	29·0	7·7	46·0	26 28·77	− 0·61	....	+ 3·19	21 26 31·35
	............*Microm.*	......	9·2	......	47·8	......					
	α Aquarii	53·6	6·8	20·3	33·7	47·0	57 20·28	+ 0·33	3·22	+ 3·20	21 57 23·81
	Uranus..................	41·0	55·0	8·5	22·3	36·0	12 8·56	+ 0·38	....	+ 3·21	22 12 12·15
	α Ursæ Minoris........	35·5	43·5	51·5	0·0	7·5	1 51·43	−13·18	....	+ 3·28	1 1 41·53
	............*Microm.*	......	46·5	......	55·0	......					
	ξ^1 Ceti..................	51·4	5·2	18·3	31·9	45·3	4 18·42	+ 0·28	....	+ 3·30	2 4 22·00
	Moon 2 Limb..........	22·7	36·8	50·8	4·9	18·8	20 50·80	+ 0·27	....	+ 3·31	2 20 54·38
	π Arietis................	41·0	54·8	8·6	22·5	36·4	40 8·66	+ 0·24	....	+ 3·32	2 40 12·22
	ε Arietis.....	22·0	36·2	50·4	4·8	19·0	49 50·48	+ 0·20	....	+ 3·32	2 49 54·00
	α Ursæ Minor. S. P....	......	......	27·0	35·5	45·0	1 27·14	+14·00	....	+ 3·57	13 1 44·71 †
	(*a*) ....*Microm.*	28·5	36·0	......	......	......					
Oct. 25	Sun 1 Limb............	9·0	22·7	36·3	50·0	3·7	58 36·34	+ 0·38	....	+ 3·60	13 58 40·32
	Sun 2 Limb............	21·3	34·8	48·4	2·3	15·8	0 48·52	+ 0·38	....	+ 3·60	14 0 52·50
	α Coronæ borealis.....	11·3	26·3	41·3	56·3	11·3	27 41·30	+ 0·17	+ 3·49	+ 3·63	15 27 45·10
	α Serpentis	41·3	54·8	8·3	21·7	35·0	36 8·22	+ 0·29	3·69	+ 3·64	15 36 12·15
	δ Ursæ Minoris........	......	......	53·0	37·5	20·0	24 52·85	− 5·80	....	+ 3·71	18 24 50·76
	............*Microm.* ...	......	......	......	44·0	......					
	α Lyræ..................	45·6	2·8	19·8	36·8	53·8	31 19·76	+ 0·07	3·70	+ 3·71	18 31 23·54
	γ Aquilæ................	58·1	11·6	25·1	38·6	52·2	38 25·12	+ 0·27	3·75	+ 3·73	19 38 29·12
	α Aquilæ	17·2	30·7	44·2	57·8	11·2	42 44·22	+ 0·28	3·81	+ 3·73	19 42 48·23
	β Aquilæ	46·3	59·5	12·9	26·3	39·6	47 12·92	+ 0·29	3·75	+ 3·73	19 47 16·94
	α Ursæ Major. S P....	31·5	0·5	29·4	58·2	27·3	53 29·36	+ 1·15	....	+ 3·78	22 53 34·29
	............*Microm.*	......	14·5	......	44·1	......					
	Ceres....................	......	......	52·3	6 8	21·5	1 52·60	+ 0·42	....	+ 3·79	23 1 56·81
	α Ursæ Minoris	34·5	42·5	52·0	0·5	8·5	1 51·50	−13·18	....	+ 3·82	1 1 42·14
	............*Microm.*	......	46·0	......	56·0	......					
	ξ^1 Arietis...............	34·1	47·7	1·2	14·4	27·6	16 1·00	+ 0·27	....	+ 3·85	2 16 5·12
	π Arietis................	40·3	54·3	8·2	22·2	36·0	40 8·20	+ 0·24	....	+ 3·85	2 40 12·29
	ε Arietis................	21·4	35·5	49·8	4·2	18·4	49 49·86	+ 0·20	....	+ 3·85	2 49 53·91
	Moon 2 Limb..........	45·2	59·0	13·8	28·8	42·5	11 13·86	+ 0·24	....	+ 3·86	3 11 17·96
	η Tauri	15·0	29·4	43·7	58·4	13·1	37 43·92	+ 0·19	....	+ 3·87	3 37 47·98
	37 Tauri................	31·1	45·3	59·7	14·1	28·2	54 59·68	+ 0·20	....	+ 3·87	3 55 3·75
	α Ursæ Minor. S. P....	8·0	14·5	25·0	......	......	1 25·18	+14·00	....	+ 4·04	13 1 43·22
	............*Microm.*	......	22·0	......	29·0	......					
	α Andromedæ	23·5	38·5	53·7	8·8	23·9	59 53·68	+ 0·16	+ 4·23	+ 4·23	....
	α Ursæ Minoris	32·0	44·0	51·5	1·0	9·0	1 51·78	−13·18	....	+ 4·25	1 1 42·85
	............*Microm.*	......	48·5	......	56·0	......					
	α Ursæ Minor. S. P....	7·0	14·5	26·0	34·0	44·0	1 24·79	+14·00	....	+ 4·50	13 1 43·29
	............*Microm.*	......	20·0	......	28·5	......					

(*a*) Micrometer 2$^{\text{r}}$·945 before, and 3$^{\text{r}}$·066 after Wire III.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Oct. 27	Sun 1 Limb	49·2	2·9	16·8	30·2	43·7	6 16·56	+ 0·38	....	+ 4·52	14 6 21·46
	Sun 2 Limb	2·0	15·4	29·2	42·8	56·8	8 29·24	+ 0·38	....	+ 4·52	14 8 34·14
	δ Ursæ Minoris	23·5	7·5	53·0	36·5	19·0	24 51·90	− 5·80	....	+ 4·61	18 24 50·71
	α Lyræ	44·8	2·0	19·1	36·0	53·2	31 19·02	+ 0·07	+ 4·40	+ 4·62	18 31 23·71
	γ Aquilæ	57·1	10·5	24·2	37·6	51·1	38 24·10	+ 0·27	4·74	+ 4·64	19 38 29·01
	α Aquilæ	16·5	29·7	43·4	56·8	10·2	42 43·32	+ 0·28	4·68	+ 4·64	19 42 48·24
	β Aquilæ	45·1	58·5	11·8	25·3	38·5	47 11·84	+ 0·29	4·80	+ 4·64	19 47 16·77
	α Ursæ Major. S. P.	30·3	59·3	28·3	57·3	26·1	53 28·24	+ 1·15	....	+ 4·69	22 53 34·08
	Microm.	......	13·8	......	42·6	......					
	α Pegasi	5·8	19·6	33·3	47·1	0·8	56 33·32	+ 0·25	4·61	+ 4·69	22 56 38·26
	γ Ursæ Major. S. P.	19·6	42·6	5·8	28·4	51·5	45 5·56	+ 0·96	....	+ 4·70	23 45 11·22
	Microm.	......	54·2	......	16·8	......					
	α Ursæ Minoris	31·5	42·5	50·5	59·5	9·5	1 50·93	−13·18	....	+ 4·71	1 1 42·46
	Microm.	......	46·5	......	56·0	......					
	α Ursæ Minor. S. P.	3·5	14·0	24·0	31·0	42·5	1 22·86	+14·00	....	+ 4·86	13 1 41·72
	Microm.	......	19·0	......	26·5	......					
Oct. 28	Sun 1 Limb	40·7	54·4	8·0	21·8	35·3	10 8·04	+ 0·39	....	+ 4·88	14 10 13·31
	(a) Sun 2 Limb	52·5	6·3	20·8	34·8	48·4	12 20·56	+ 0·39	....	+ 4·88	14 12 26·23
Oct. 29	Sun 1 Limb	33·0	46·7	0·4	14·0	27·7	14 0·36	+ 0·39	....	+ 5·18	14 14 5·93
	Sun 2 Limb	46·0	59·8	13·4	27·3	41·0	16 13·50	+ 0·39	....	+ 5·18	14 16 19·07
	δ Ursæ Minoris	......	7·0	50·0	35·5	17·5	24 50·60	− 5·80	....	+ 5·23	18 24 50·03
	Microm.	......	59·0	......	42·5	......					
	α Lyræ	44·1	1·2	18·2	35·2	52·3	31 18·20	+ 0·07	+ 5·18	+ 5·23	18 31 23·50
	Microm.	......	9·7	......	26·7	......					
	α Ursæ Minoris	37·0	45·5	54·5	3·5	10·5	1 54·43	−13·18	....	+ 5·33	1 1 46·58
	Microm.	......	52·0	......	57·5	......					
	α Arietis	25·3	39·7	54·3	8·6	22·8	57 54·14	+ 0·19	5·37	+ 5·35	1 57 59·68
Oct. 30	α Ursæ Minor. S. P.	2·5	13·0	22·0	30·0	38·5	1 21·22	+14·00	....	+ 6·03	13 1 41·25
	Microm.	......	18·0	......	25·0	......					
Oct. 31	Sun 1 Limb	19·5	33·2	46·8	0·8	14·4	21 46·94	+ 0·50	....	+ 6·06	14 21 53·50
	Sun 2 Limb	32·9	46·7	0·3	14·2	28·0	24 0·42	+ 0·50	....	+ 6·06	14 24 6·98
	α Coronæ borealis	8·8	23·7	38·7	53·7	8·5	27 38·68	+ 0·22	+ 6·05	+ 6·08	15 27 44·98
	α Ophiuchi	46·3	59·8	13·5	27·1	40·8	27 13·50	+ 0·33	6·20	+ 6·12	17 27 19·95
	α Lyræ	43·2	0·2	17·2	34·3	51·2	31 17·22	+ 0·11	6·08	+ 6·13	18 31 23·46
	α Ursæ Minor. S. P.	......	......	15·0	......	......	1 14·60	+16·30	....	+ 6·46	13 1 37·36
	Microm.	......	10·0	......	......	......					
Nov. 1	α Pegasi	3·5	17·3	31·2	44·9	58·7	56 31·12	+ 0·32	+ 6·69	+ 6·64	22 56 38·08
	Mars 2 Limb	25·3	39·3	53·5	7·6	21·6	59 53·46	+ 0·29	....	+ 6·83	9 0 0·58
	83 Cancri	15·7	29·8	43·9	58·0	11·9	9 43·86	+ 0·30	....	+ 6·84	9 9 51·00
	Jupiter 1 Limb	......	18·1	......	45·6	......	16 31·85	+ 0·31	....	+ 6·84	9 16 39·00
	Jupiter 2 Limb	6·9	......	34·7	......	2·4	16 34·67	+ 0·31	....	+ 6·84	9 16 41·82
	α Hydræ	59·2	12·4	25·8	39·3	52·8	19 25·90	+ 0·46	6·74	+ 6·84	9 19 33·20
	Moon 2 Limb	40·5	54·9	9·3	23·8	38·2	27 9·34	+ 0·29	....	+ 6·85	9 27 16·48
	α Ursæ Minor. S. P.	0·0	8·0	16·5	25·0	35·0	1 16·79	+16·30	....	+ 6·95	13 1 40·04
	Microm.	......	13·0	......	20·5	......					
	α Bootis	35·8	50·0	4·2	18·3	32·5	8 4·16	+ 0·28	6·93	+ 6·99	14 8 11·43
Nov. 2	α Coronæ borealis	7·8	22·7	37·6	52·6	7·6	27 37·66	+ 0·22	+ 7·08	+ 7·03	15 27 44·91
	α Serpentis	38·0	51·3	4·7	18·1	31·5	36 4·72	+ 0·37	7·11	+ 7·03	15 36 12·12
	α Herculis	36·0	49·8	3·4	17·2	31·0	7 3·48	+ 0·32	7·08	+ 7·07	17 7 10·87
	α Ophiuchi	45·4	59·3	12·7	26·3	39·7	27 12·68	+ 0·33	7·01	+ 7·08	17 27 20·09
	δ Ursæ Minoris	20·0	5·0	48·5	32·0	15·5	24 48·32	− 6·72	....	+ 7·09	18 24 48·69
	Microm.	......	57·0	......	40·0	......					

(*a*) Wires I. and II. apparently 1 second in defect. They are rejected.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Nov. 2	α Lyræ	42·2	59·1	16·2	33·2	50·3	31 16·20	+ 0·11	+ 7·06	+ 7·09	18 31 23·40
	α Piscis Australis	58·5	14·0	29·4	45·0	0·3	48 29·44	+ 0·60	·········	+ 7·14	22 48 37·18
	α Ursæ Major. S.P.	27·5	56·4	25·4	54·4	23·5	53 25·47	+ 1·36	·········	+ 7·14	22 53 33·97
	············*Microm.*	······	11·3	······	39·8	······					
	(a) γ Ursæ Major. S.P.	16·7	38·8	2·9	25·4	49·0	45 2·84	+ 1·14	·········	+ 7·15	23 45 11·13
	············*Microm.*	······	51·5	······	14·5	······					
	α Ursæ Minoris	32·0	42·0	51·5	2·0	10·5	1 51·86	− 15·30	·········	+ 7·16	1 1 43·72
	············*Microm.*	······	48·0	······	56·5	······					
Nov. 3	α Coronæ borealis	7·4	22·4	37·4	52·3	7·3	27 37·36	+ 0·22	+ 7·38	+ 7·32	15 27 44·90
	δ Ursæ Minoris	19·0	3·5	47·0	30·0	14·5	24 46·89	− 6·72	·········	+ 7·35	18 24 47·52
	············*Microm.*	······	55·5	······	38·5	······					
	α Lyræ	41·8	58·8	15·9	33·0	50·0	31 15·90	+ 0·11	7·34	+ 7·35	18 31 23·36
	α Aquarii	49·3	2·5	15·8	29·2	42·4	57 15·84	+ 0·42	7·44	+ 7·38	21 57 23·64
	Uranus	15·6	29·2	42·8	56·4	10·0	11 42·80	+ 0·48	·········	+ 7·39	22 11 50·67
	α Piscis Australis	58·5	14·0	29·6	45·1	0·3	48 29·50	+ 0·60	·········	+ 7·39	22 48 37·49
	α Ursæ Major. S.P.	27·6	56·5	25·4	54·3	23·3	53 25·42	+ 1·36	·········	+ 7·39	22 53 34·17
	α Pegasi	3·0	16·8	30·4	44·2	57·8	56 30·44	+ 0·32	7·35	+ 7·39	22 56 38·15
	γ Ursæ Major. S.P.	17·2	40·4	3·2	26·2	49·2	45 3·24	+ 1·14	·········	+ 7·39	23 45 11·77
	α Andromedæ	20·2	35·4	50·4	5·7	20·7	59 50·48	+ 0·22	7·32	+ 7·40	23 59 58·10
	γ Pegasi	15·4	29·2	43·0	56·6	10·3	4 42·90	+ 0·32	7·42	+ 7·40	0 4 50·62
	Moon 2 Limb	21·3	35·3	49·2	3·1	16·9	4 49·16	+ 0·36	·········	+ 7·45	11 4 56·97
	γ Ursæ Majoris	18·2	41·2	4·1	27·0	50·2	45 4·10	− 0·14	·········	+ 7·45	11 45 11·41
	············*Microm.*	······	52·5	······	15·5	······					
	Venus 2 Limb	31·3	44·5	58·1	11·5	24·7	54 58·02	+ 0·40	·········	+ 7·46	11 55 5·88
	α Ursæ Minor. S.P.	······	8·0	······	25·0	36·0	1 17·28	+ 16·30	·········	+ 7·46	13 1 41·04
	············*Microm.*	······	14·0	······	21·0	······					
Nov. 4	Sun 1 Limb	2·8	16·5	30·2	44·2	57·8	37 30·30	+ 0·51	·········	+ 7·47	14 37 38·28
	Sun 2 Limb	17·1	31·0	44·8	58·8	12·5	39 44·84	+ 0·51	·········	+ 7·47	14 39 52·82
	α Coronæ borealis	7·5	22·4	37·3	52·2	7·2	27 37·32	+ 0·22	+ 7·42	+ 7·48	15 27 45·02
	α Serpentis	37·4	50·8	4·3	17·7	31·0	36 4·24	+ 0·37	7·60	+ 7·48	15 36 12·09
	α Lyræ	41·7	59·0	15·8	32·8	49·8	31 15·82	+ 0·11	7·40	+ 7·49	18 31 23·42
	Uranus	14·3	27·8	41·6	55·1	8·7	11 41·50	+ 0·48	·········	+ 7·51	22 11 49·49
	α Ursæ Major. S.P.	28·0	57·0	25·8	54·8	23·8	53 25·80	+ 1·36	·········	+ 7·52	22 53 34·68
	············*Microm.*	······	11·2	······	40·0	······					
	α Pegasi	2·8	16·4	30·2	44·1	57·8	56 30·26	+ 0·32	7·52	+ 7·52	22 56 38·10
	γ Ursæ Major. S.P.	16·8	39·8	2·7	25·6	48·8	45 2·74	+ 1·14	·········	+ 7·52	23 45 11·40
	············*Microm.*	······	51·3	······	14·2	······					
	α Andromedæ	20·2	35·4	50·2	5·3	20·4	59 50·30	+ 0·22	7·49	+ 7·52	23 59 58·04
	γ Pegasi	15·2	28·9	43·0	56·4	10·1	4 42·72	+ 0·32	7·59	+ 7·52	0 4 50·56
	α Ursæ Minoris	28·0	38·5	47·5	58·0	6·5	1 47·57	− 15·30	·········	+ 7·53	1 1 39·80
	············*Microm.*	······	42·5	······	51·5	······					
	γ Ursæ Majoris	17·8	40·8	3·7	26·8	49·8	45 3·78	− 0·14	·········	+ 7·58	11 45 11·22
	Moon 2 Limb	10·6	23·6	37·3	50·9	4·5	52 37·38	+ 0·39	·········	+ 7·59	11 52 45·36
	Venus 2 Limb	47·3	0·7	13·9	27·4	40·7	59 14·00	+ 0·40	·········	+ 7·59	11 59 21·99
	α Ursæ Minor. S.P.	0·5	8·0	17·0	26·5	37·5	1 17·79	+ 16·30	·········	+ 7·59	13 1 41·68
	············*Microm.*	······	13·5	······	22·0	······					
	Mercury 2 Limb	40·5	53·8	7·3	20·8	34·2	33 7·32	+ 0·46	·········	+ 7·59	13 33 15·37
Nov. 5	Sun 1 Limb	0·8	14·7	28·4	42·1	56·0	41 28·40	+ 0·51	·········	+ 7·60	14 41 36·51
	Sun 2 Limb	15·3	29·2	43·2	56·8	10·8	43 43·06	+ 0·51	·········	+ 7·60	14 43 51·17
	α Ursæ Major. S.P.	27·6	56·5	25·5	54·4	23·6	53 25·53	+ 1·36	·········	+ 7·65	22 53 34·54
	············*Microm.*	······	11·3	······	39·8	······					
	α Pegasi	2·7	16·3	30·2	43·9	57·5	56 30·12	+ 0·32	+ 7·65	+ 7·65	22 56 38·09
	γ Ursæ Major. S.P.	16·8	39·5	2·8	25·8	48·9	45 2·71	+ 1·14	·········	+ 7·65	23 45 11·50
	············*Microm.*	······	51·2	······	14·0	······					
	α Andromedæ	20·0	35·1	50·2	5·3	20·3	59 50·18	+ 0·22	7·61	+ 7·65	23 59 58·05

(a) Wire II. apparently 1 second in defect. It is rejected.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Nov. 5	γ Pegasi	15·1	28·8	42·7	56·4	10·1	4 42·62	+ 0·32	+ 7·68	+ 7·65	0 4 50·59
	α Ursæ Minoris	27·0	37·5	……	……	……	1 46·10	− 15·30	………	+ 7·66	1 1 38·46
Nov. 6	α Ursæ Minor. S. P.	58·5	7·0	15·0	24·0	34·0	1 15·79	+ 16·31	………	+ 7·96	13 1 40·06
	Microm.	……	12·5	……	20·0	……					
	Mercury 2 Limb	58·8	12·5	25·9	39·4	53·1	40 25·94	+ 0·46	………	+ 7·97	13 40 34·37
	α Bootis	34·8	49·0	3·2	17·4	31·5	8 3·18	+ 0·28	+ 7·96	+ 7·97	14 8 11·43
Nov. 7	Sun 1 Limb	59·3	13·3	27·2	41·2	55·2	49 27·24	+ 0·51	………	+ 7·98	14 49 35·73
	Sun 2 Limb	14·6	28·5	42·4	56·4	10·3	51 42·44	+ 0·51	………	+ 7·98	14 51 50·93
	α Coronæ borealis	6·8	21·8	36·7	51·7	6·6	27 36·72	+ 0·33	7·91	+ 7·98	15 27 45·03
	α Serpentis	37·0	50·3	3·8	17·2	30·6	36 3·78	+ 0·37	8·07	+ 7·98	15 36 12·13
	α Herculis	35·1	48·7	2·4	16·2	29·9	7 2·46	+ 0·32	8·07	+ 8·00	17 7 10·78
	α Ophiuchi	44·4	58·0	11·6	25·3	39·0	27 11·66	+ 0·33	7·99	+ 8·01	17 27 20·00
	δ Ursæ Minoris	17·0	0·0	45·0	29·0	12·5	24 44·82	− 6·72	………	+ 8·02	18 24 46·12
	Microm.	……	53·5	……	36·5	……					
	α Lyræ	41·2	58·2	15·3	32·2	49·3	31 15·24	+ 0·11	7·92	+ 8·03	18 31 23·38
	Uranus	11·6	25·3	38·8	52·3	5·8	11 38·76	+ 0·48	………	+ 8·09	22 11 47·33
	α Piscis Australis	57·5	13·0	28·4	44·0	59·2	48 28·42	+ 0·60	………	+ 8·10	22 48 37·12
	α Ursæ Major. S. P.	27·3	56·2	25·3	54·3	23·2	53 25·19	+ 1·36	………	+ 8·10	22 53 34·65
	Microm.	……	10·6	……	39·4	……					
	γ Ursæ Major. S. P.	16·5	39·3	2·4	25·2	48·3	45 2·31	+ 1·14	………	+ 8·11	23 45 11·56
	Microm.	……	50·7	……	13·8	……					
	α Ursæ Minoris	28·0	39·0	48·5	57·0	6·5	1 47·78	− 15·31	………	+ 8·13	1 1 40·60
	Microm.	……	43·5	……	51·5	……					
Nov. 8	δ Ursæ Minoris	17·0	0·5	45·0	28·0	11·5	24 44·32	− 6·72	………	+ 8·42	18 24 46·02
	Microm.	……	52·5	……	35·5	……					
	α Lyræ	40·8	57·8	14·9	32·0	49·0	31 14·90	+ 0·11	+ 8·25	+ 8·43	18 31 23·44
	α Aquarii	47·8	1·5	14·4	27·8	41·0	57 14·46	+ 0·42	8·76	+ 8·48	21 57 23·36
	Uranus	11·0	24·4	37·9	51·6	5·2	11 38·02	+ 0·48	………	+ 8·49	22 11 46·99
	α Piscis Australis	57·2	12·8	28·0	43·5	58·9	48 28·08	+ 0·60	………	+ 8·49	22 48 37·17
	α Ursæ Major. S. P.	27·0	56·0	24·7	53·5	22·5	53 24·70	+ 1·36	………	+ 8·50	22 53 34·56
	Microm.	……	10·2	……	39·0	……					
	α Pegasi	1·9	15·5	29·2	43·0	56·8	56 29·28	+ 0·32	8·46	+ 8·50	22 56 38·10
	α Andromedæ	19·2	34·3	49·3	4·4	19·5	59 49·34	+ 0·22	8·42	+ 8·51	23 59 58·07
	γ Pegasi	14·2	28·1	41·7	55·5	9·2	4 41·74	+ 0·32	8·55	+ 8·51	0 4 50·57
	α Ursæ Minoris	26·5	38·0	47·5	56·0	6·0	1 47·07	− 15·31	………	+ 8·52	1 1 40·28
	Microm.	……	44·0	……	51·0	……					
Nov. 9	γ Pegasi	14·2	27·9	41·5	55·2	9·0	4 41·56	+ 0·32	+ 8·72	+ 8·73	0 4 50·61
	α Bootis	33·9	48·1	2·2	16·4	30·5	8 2·22	+ 0·28	8·88	+ 8·99	14 8 11·49
Nov. 10	Sun 1 Limb	3·4	17·4	31·3	45·2	59·3	1 31·32	+ 0·51	………	+ 9·01	15 1 40·84
	Uranus	10·4	23·6	37·4	50·9	4·4	11 37·34	+ 0·48	………	+ 9·20	22 11 47·02
	α Piscis Australis	56·4	12·0	27·3	42·8	58·1	48 27·32	+ 0·60	………	+ 9·22	22 48 37·14
	α Ursæ Major. S. P.	26·2	55·2	23·9	53·0	22·2	53 24·07	+ 1·36	………	+ 9·22	22 53 34·65
	Microm.	……	9·5	……	38·5	……					
	α Pegasi	1·1	14·9	28·3	42·1	56·0	56 28·48	+ 0·32	+ 9·23	+ 9·23	22 56 38·03
	γ Ursæ Major. S. P.	15·5	38·4	1·4	24·3	47·3	45 1·37	+ 1·14	………	+ 9·25	23 45 11·76
	Microm.	……	50·2	……	12·5	……					
	α Andromedæ	18·4	33·4	48·4	3·5	18·6	59 48·46	+ 0·22	9·28	+ 9·25	23 59 57·93
	γ Pegasi	13·7	27·2	40·9	54·7	8·4	4 40·98	+ 0·32	9·29	+ 9·25	0 4 50·55
	α Ursæ Minoris	25·0	34·0	43·5	54·0	1·5	1 43·71	− 15·31	………	+ 9·27	1 1 37·67
	Microm.	……	40·0	……	47·5	……					
	α Arietis	21·5	35·9	50·2	4·6	19·2	57 50·28	+ 0·26	9·23	+ 9·29	1 57 59·83
Nov. 11	α Arietis	21·0	35·4	49·8	4·3	18·8	57 49·86	+ 0·26	+ 9·66	+ 9·66	……………

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Nov. 11	α Ursæ Minor. S. P.····	......	3·0	13·0	23·5	......	1 13·01	+ 16·31	....	+ 9·86	13 1 39 18
	............*Microm.* ····	......	7·5	......	16·5	......					
Nov. 13	γ Aquilæ··········· ····	51·3	4·8	18·3	31·7	45·2	38 18·26	+ 0·18	+ 10·44	+ 10·40	10 38 28·84
	α Aquilæ················	10·4	24·2	37·2	50·8	4·2	42 37·36	+ 0·19	10·50	+ 10·40	19 42 47·95
	Moon 1 Limb·· ·······	22·6	38·0	53·6	9·0	24·5	46 53·54	+ 0·33	....	+ 10·40	19 47 4·27
	α^2 Capricorni··········	20·5	34·3	47·9	1·5	15·2	8 47·88	+ 0·27	10·54	+ 10·40	20 8 58·55
	α Ursæ Minor. S. P.····	......	......	14·5	24·5	35·5	1 15·52	+ 11·34	....	+ 10·64	13 1 37·50
	............*Microm.* ····	......	11·0	......	20·0	......					
	α Bootis················	32·7	46·8	1·0	15·1	29·3	8 0·98	+ 0·13	10·42	+ 10·65	14 8 11·76
	Mercury 2 Limb······	47·2	0·7	14·4	28·2	41·7	14 14·44	+ 0·26	....	+ 10·65	14 14 25·35
Nov. 14	Sun 1 Limb············	20·4	34·5	48·3	2·5	16·5	17 48·44	+ 0·29	....	+ 10·67	15 17 59·40
	Sun 2 Limb············	37·3	51·3	5·3	19·2	33·4	20 5·30	+ 0·29	....	+ 10·67	15 20 16·26
	α Herculis··············	32·5	46·2	0·1	13·8	27·4	7 0·00	+ 0·17	+ 10·65	+ 10·69	17 7 10·86
	α Ophiuchi·············	42·0	55·5	9·2	23·0	36·4	27 9·22	+ 0·17	10·55	+ 10·69	17 27 20·08
	δ Ursæ Minoris········	10·5	55·0	38·0	21·5	5·0	24 38·10	− 4·73	....	+ 10·70	18 24 44·07
	............*Microm.* ····	......	47·0	......	29·5	......					
	Moon 1 Limb··········	29·0	44·1	59·5	15·0	30·0	50 59·52	+ 0·31	....	+ 10·74	20 51 10·57
	ζ Capricorni············	39·3	53·7	8·2	23·0	37·2	17 8·28	+ 0·30	....	+ 10·74	21 17 19·32
	ε Capricorni············	15·8	29·8	44·2	58·3	12·4	27 44·10	+ 0·29	....	+ 10·74	21 27 55·13
	α Aquarii················	46·0	59·3	12·4	25·8	39·0	57 12·50	+ 0·22	10·84	+ 10·75	21 57 23·47
	Uranus···················	11·1	24·7	38·2	52·0	5·4	11 38·28	+ 0·26	....	+ 10·76	22 11 49·30
	α Piscis Australis·····	55·2	10·7	26·2	41·4	57·0	48 26·10	+ 0·33	....	+ 10·77	22 48 37·20
	α Ursæ Major. S. P.····	25·0	53·5	23·0	52·0	21·3	53 23·01	+ 0·92	....	+ 10·77	22 53 34·70
	............*Microm.* ····	......	8·8	......	37·5	......					
	α Pegasi················	59·4	13·3	27·1	40·7	54·4	56 26·98	+ 0·17	10·83	+ 10·78	22 56 37·93
	γ Ursæ Major. S. P.····	14·3	37·3	0·2	23·2	46·2	45 0·23	+ 0·77	....	+ 10·79	23 45 11·79
	............*Microm.* ····	......	48·7	......	11·7	......					
	α Andromedæ·········	17·0	32·1	47·2	2·2	17·3	59 47·16	+ 0·10	10·67	+ 10·80	23 59 58·06
	γ Pegasi················	12·1	25·7	39·4	53·3	7·1	4 39·52	+ 0·17	10·87	+ 10·80	0 4 50·49
	α Ursæ Minoris·······	18·0	25·0	36·0	48·5	57·0	1 36·90	− 10·72	....	+ 10·82	1 1 37·00
Nov. 15	δ Ursæ Minoris········	......	......	37·0	......	......	24 37·15	− 6·41	....	+ 11·18	18 24 41·92
	............*Microm.* ····	......	46·0	......	......	......					
	α Lyræ···················	37·8	55·0	12·2	29·1	46·2	31 12·06	+ 0·09	+ 10·99	+ 11·18	18 31 23·33
	α Andromedæ·········	16·3	31·4	46·3	1·5	16·5	59 46·40	+ 0·20	11·32	+ 11·28	23 59 57·88
	γ Pegasi················	11·3	25·1	38·8	52·5	6·3	4 38·80	+ 0·30	11·46	+ 11·29	0 4 50·39
	α Ursæ Minoris········	22·5	31·5	40·0	50·0	0·0	1 40·71	− 14·61	....	+ 11·30	1 1 37·40
	............*Microm.* ····	......	36·0	......	44·5	......					
Nov. 16	α Ursæ Minor. S. P.····	51·0	1·0	10·0	20·0	31·5	1 10·36	+ 15·55	....	+ 11·78	13 1 37·69
	............*Microm.* ····	......	5·5	......	14·0	......					
	α Bootis················	31·1	45·3	59·5	13·7	27·8	7 59·48	+ 0·25	+ 11·84	+ 11·79	14 8 11·52
	Mercury 2 Limb······	33·6	47·2	0·9	14·6	28·2	31 0·90	+ 0·46	....	+ 11·80	14 31 13·16
Nov. 17	Sun 1 Limb············	41·8	55·8	10·0	24·0	38·2	30 9·96	+ 0·49	....	+ 11·81	15 30 22·26
	Sun 2 Limb············	59·2	13·4	27·5	41·6	55·8	32 27·50	+ 0·49	....	+ 11·81	15 32 39·80
	α Ophiuchi·············	40·5	54·2	7·8	21·5	35·1	27 7·82	+ 0·31	11·80	+ 11·84	17 27 19·97
	δ Ursæ Minoris········	8·5	52·5	36·0	20·0	4·0	24 36·03	− 6·41	....	+ 11·85	18 24 41·47
	............*Microm.* ····	......	44·0	......	27·0	......					
	α Lyræ···················	37·0	54·1	11·2	28·2	45·2	31 11·14	+ 0·09	11·88	+ 11·85	18 31 23·08
	α Arietis·········· ·····	18·9	33·2	47·7	2·0	16·3	57 47·62	+ 0·24	11·93	+ 11·97	1 57 59·83
Nov. 18	α Pegasi················	57·8	11·6	25·2	39·0	52·8	56 25·28	+ 0·30	+ 12·36	+ 12·32	22 56 37·90
	30 Piscium·············	55·4	9·2	22·5	36·1	49·4	53 22·52	+ 0·42	....	+ 12·33	23 53 35·27
	α Andromedæ··········	15·0	30·2	45·4	0·7	15·7	59 45·40	+ 0·20	12·29	+ 12·34	23 59 57·94
	γ Pegasi················	10·3	24·0	38·0	51·8	5·4	4 37·90	+ 0·30	12·33	+ 12·34	0 4 50·54

Date.	OBJECT OBSERVED.	Wire					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Nov. 18	Moon 1 Limb..........	7·8	21·5	34·8	48·6	2·2	24 34·98	+ 0·40	....	+12·35	0 24 47·73
	20 Ceti..................	1·4	14·5	27·8	41·1	54·4	44 27·84	+ 0·39	....	+12·35	0 44 40·58
	ε Piscium..............	50·3	......	......	30·0	43·3	54 16·74	+ 0·34	....	+12·36	0 54 29·44
	α Ursæ Minoris	......	......	33·0	......	......	1 33·30	− 14·61	....	+12·36	1 1 31·05
	............*Microm.*	......	30·0	......	......	......					
Nov. 19	α Ursæ Minoris........	......	......	35·5	46·5	55·0	1 35·82	− 14·61	....	+12·89	1 1 34·10
	............*Microm.*	......	......	......	39·5	......					
	Moon 1 Limb..........	53·4	7·0	20·5	34·0	47·7	12 20·52	+ 0·36	....	+12·89	1 12 33·77
Nov. 20	α Andromedæ.........	14·2	29·2	44·3	59·5	14·5	59 44·34	+ 0·20	+13·33	+13·39	23 59 57·93
	γ Pegasi................	9·2	23·2	36·6	50·4	4·2	4 36·72	+ 0·30	13·49	+13·39	0 4 50·41
	α Ursæ Minoris	14·0	26·5	35·0	45·0	53·0	1 34·64	− 14·61	....	+13·42	1 1 33·45
	............*Microm.*	......	30·5	......	38·0	......					
	ο Piscium..............	7·0	20·2	33·4	47·3	0·5	36 33·68	+ 0·33	....	+13·43	1 36 47·44
	α Arietis................	17·3	31·8	46·3	0·7	15·0	57 46·22	+ 0·24	13·33	+13·44	1 57 59·90
	Moon 1 Limb..........	51·0	4·7	18·7	32·4	46·2	0 18·60	+ 0·33	....	+13·44	2 0 32·37
	38 Arietis..............	24·2	38·0	51·6	5·0	18·5	35 51·46	+ 0·31	....	+13·45	2 36 5·22
	π Arietis...............	30·8	44·7	58·6	12·4	26·3	39 58·56	+ 0·28	....	+13·45	2 40 12·29
	α Ceti..................	5·3	19·0	32·2	45·4	59·0	53 32·18	+ 0·36	13·52	+13·46	2 53 46·00
Nov. 21	α Piscis Australis.....	51·7	7·2	22·5	38·1	53·4	48 22·58	+ 0·56	....	+13·91	22 48 37·05
	α Pegasi................	56·0	9·9	23·5	37·3	51·1	56 23·56	+ 0·30	+14·04	+13·91	22 56 37·77
	γ Ursæ Major. S. P....	11·3	34·2	57 2	20·3	43·3	44 57·20	+ 1·08	....	+13·93	23 45 12·21
	............*Microm.*	......	45·8	......	8·3	......					
	α Andromedæ.........	13·6	28·7	43·9	59·1	13·9	59 43·84	+ 0·20	13·82	+13·93	23 59 57·97
	γ Pegasi................	8·6	22·4	36·3	50·1	3·7	4 36·22	+ 0·30	13·99	+13·94	0 4 50·46
	α Ursæ Minoris	11·5	23·0	33·0	41·0	50·5	1 32·14	− 14·61	....	+13·95	1 1 31·48
	............*Microm.*	......	29·0	......	36·5	......					
	α Arietis................	16·7	31.2	45·7	0·2	14·5	57 45·66	+ 0·24	13·89	+13·97	1 57 59·87
	38 Arietis..............	23·8	37·4	51·0	4·7	18·2	35 51·02	+ 0·31	....	+13·98	2 36 5·31
	π Arietis...............	30·4	44·4	58·3	12·2	26·2	39 58·30	+ 0·28	....	+13·98	2 40 12·56
	Moon 1 Limb..........	59·2	13·4	27·7	42·0	56·2	49 27·70	+ 0·30	....	+13·98	2 49 41·98
	δ Arietis................	36·9	51·0	5·1	19·1	33·2	2 5·06	+ 0·26	....	+13·99	3 2 19·31
	64 Arietis..............	58·4	13·1	27·5	42·3	56·7	14 27·60	+ 0·23	....	+13·99	3 14 41·82
	α Ursæ Minor. S. P....	47·0	56·5	5·0	15·0	......	1 5·50	+15·55	....	+14·16	13 1 35·21
	............*Microm.*	......	0·0	......	9·0	......					
Nov. 27	α Ursæ Minor. S. P....	......	47·5	56·5	6·0	18·0	0 57·13	+15·56	....	+16·60	13 1 29·29
	............*Microm.*	. ....	52·5	......	1·0	......					
	Venus 2 Limb.........	25·2	38·7	52·2	5·7	19·0	39 52·16	+ 0·43	....	+16·61	13 40 9·20
	α Bootis................	26·5	40·7	55·0	9·3	23·4	7 54·98	+ 0·25	+16·56	+16·61	14 8 11·84
Nov. 28	γ Ursæ Major. S. P....	8·4	31·4	54·5	17·4	40·4	45 54·40	+ 1·08	....	+16·77	23 45 12·25
	............*Microm.*	......	43·0	......	5·7	......					
	α Andromedæ.........	10·6	25·6	40·8	56·1	11·0	59 40·82	+ 0·20	16·77	+16·77	23 59 57·79
	γ Pegasi....	5·8	19·4	33·3	47·0	0·7	4 33·24	+ 0·30	16·90	+16·77	0 4 50·31
	α Ursæ Minoris	10·5	19·5	31·0	43·0	50·0	1 30·57	− 14·62	....	+16·78	1 1 32·73
	............*Microm.*	......	25·0	......	34·5	......					
	α Arietis................	14·0	28·3	42·8	57·2	11·5	57 42·76	+ 0·24	16·78	+16·79	1 57 59·79
Nov. 29	α Pegasi................	52·9	6·6	20·4	34·2	47·8	56 20·38	+ 0·30	+17·13	+17·03	22 56 37·71
	α Ursæ Minor. S. P....	37·0	46·0	56·0	4·0	13·5	0 55·22	+15·56	....	+17·18	13 1 27·96
	............*Microm.*	......	51·5	......	59·0	......					
	α Virginis..............	50·4	3·8	17·3	30·8	44·3	16 17·32	+ 0·44	17·19	+17·19	13 16 34·95
	Venus 2 Limb.........	28·7	42·2	55·7	9·3	22·7	48 55·72	+ 0·44	....	+17·19	13 49 13·35
	α Bootis................	26·2	40·4	54·5	8·7	22·7	7 54·50	+ 0·25	17·09	+17·20	14 8 11·95
	Mercury 2 Limb......	0·8	15·0	29·2	43·4	57·4	50 29·16	+ 0·49	....	+17·21	15 50 46·86

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Nov. 30	Sun 1 Limb	26·7	51·2	5·4	19·8	34·2	25 5·46	+ 0·50	……	+17·22	16 25 23·18
	Sun 2 Limb	57·0	11·4	25·7	40·1	54·5	27 25·74	+ 0·50	……	+17·22	16 27 43·46
	α Ophiuchi	35·2	48·8	2·5	16·2	29·8	27 2·50	+ 0·31	+17·14	+17·23	17 27 20·04
	δ Ursæ Minoris	59·5	44·0	28·0	11·5	55·0	24 27·67	− 6·41	……	+17·24	18 24 38·50
	Microm.	……	36·0	……	19·5	……					
	γ Aquilæ	44·1	57·6	11·1	24·5	38·2	38 11·10	+ 0·32	17·31	+17·25	19 38 28·67
	α Aquilæ	3·4	16·8	30·2	43·7	57·2	42 30·26	+ 0·33	17·31	+17·26	19 42 47·85
	β Aquilæ	32·1	45·5	58·8	12·3	25·6	46 58·86	+ 0·35	17·34	+17·26	19 47 16·47
	Uranus	43·6	57·2	10·8	24·5	38·0	12 10·82	+ 0·45	……	+17·29	22 12 28·56
	α Piscis Australis	48·2	3·7	19·2	34·5	50·1	48 19·14	+ 0·56	……	+17·31	22 48 37·01
	γ Ursæ Major. S.P.	8·2	31·2	54·3	17·2	40·2	44 54·20	+ 1·08	……	+17·33	23 45 12·61
	Microm.	……	42·6	……	5·7	……					
	α Andromedæ	10·0	25·1	40·2	55·4	10·4	59 40·22	+ 0·20	17·34	+17·33	23 59 57·75
	α Ursæ Minoris	5·5	17·5	……	……	……	1 25·97	−14·62	……	+17·35	1 1 28·70 †
	(a) Microm.	7·0	28·0	50·0	11·0	……					
		INSTRUMENT REVERSED.									
	α Ursæ Minoris	……	……	……	29·5	42·0	1 20·22	− 8·02	……	+17·35	1 1 29·55 †
	(b) Microm.	52·0 38·0	13·0 ……	36·0 ……	56·0 ……	18·0 ……					
	α Arietis	13·3	27·7	42·2	56·6	11·1	57 42·18	+ 0·40	+ 17·20	+17·37	1 57 59·95
	Moon 2 Limb	27·9	41·8	55·6	9·6	23·6	43 55·70	+ 0·46	……	+17·56	10 44 13·72
Dec. 1	Sun 1 Limb	55·3	9·7	24·0	38·3	52·7	29 24·00	+ 0·64	……	+17·69	16 29 42·33
	Sun 2 Limb	14·8	30·0	44·3	58·6	13·1	31 44·16	+ 0·64	……	+17·69	16 32 2·49
	α Ophiuchi	34·6	48·2	1·8	15·5	29·2	27 1·86	+ 0·44	+17·65	+17·71	17 27 20·01
	δ Ursæ Minoris	57·0	39·0	24·0	7·5	51·5	24 23·90	− 3·42	……	+17·73	18 24 38·21
	Microm.	……	32·5	……	16·0	……					
	γ Aquilæ	43·5	57·0	10·4	23·9	37·4	38 10·44	+ 0·46	17·82	+17·75	19 38 28·65
	α Aquilæ	2·8	16·2	29·7	43·2	56·7	42 29·72	+ 0·47	17·70	+17·76	19 42 47·95
	β Aquilæ	31·5	44·8	58·2	11·6	25·0	46 58·22	+ 0·48	17·84	+17·76	19 47 16·46
	Uranus	47·8	1·5	15·2	28·6	42·2	12 15·06	+ 0·57	……	+17·79	22 12 33·42
	α Pegasi	2·0	5·7	19·6	33·4	47·0	56 19·54	+ 0·43	17·81	+17·80	22 56 37·77
Dec. 2	α Arietis	12·3	26·5	41·2	55·3	10·1	57 41·08	+ 0·40	+18·29	+18·20	1 57 59·68
	α Ceti	0·8	14·2	27·4	40·6	54·0	53 27·40	+ 0·49	18·21	+18·21	2 53 46·10
	Moon 2 Limb	……	……	29·2	42·8	56·3	17 29·16	+ 0·53	……	+18·32	12 17 48·01
	γ Virginis	36·8	50·3	3·8	17·2	30·7	33 3·76	+ 0·51	……	+18·32	13 33 22·59
	δ Virginis	36·5	49·8	3·3	16·6	29·8	47 3·20	+ 0·49	……	+18·32	12 47 22·01
	α Ursæ Minor. S.P.	40·5	51·0	59·5	9·5	18·0	0 59·64	+ 8·90	……	+18·32	13 1 26·86
	Microm.	……	54·5	……	4·0	……					
	Venus 2 Limb	11·0	24·6	38·1	51·4	5·3	2 38·08	+ 0·56	……	+18·33	14 2 56·97
	α Bootis	24·8	39·1	53·3	7·4	21·5	7 53·22	+ 0·40	18·29	+18·33	14 8 11·95
Dec. 3	Sun 1 Limb	34·5	48·9	3·4	17·8	32·0	38 3·32	+ 0·64	……	+18·35	16 38 22·31
	Sun 2 Limb	55·3	9·7	24·0	38·3	53·0	40 24·06	+ 0·64	……	+18·35	16 40 43·05
	δ Ursæ Minoris	54·5	38·0	23·0	……	……	24 22·12	− 3·42	……	+18·37	18 24 37·07
	Microm.	……	30·0	……	14·0	……					
	α Lyræ	30·2	47·2	4·3	21·3	38·3	31 4·26	+ 0·29	+18·41	+18·37	18 31 22·92
	α Cygni	54·3	13·0	31·7	50·6	9·3	35 31·78	+ 0·24	18·61	+18·39	20 35 50·41
	α Andromedæ	8·7	24·0	39·2	54·2	9·3	59 39·08	+ 0·36	18·29	+18·42	23 59 57·86
	γ Pegasi	4·2	17·8	31·6	45·3	59·2	4 31·62	+ 0·43	18·35	+18·42	0 4 50·47
	α Ursæ Minoris	58·0	8·0	……	26·0	39·0	1 17·68	− 8·03	……	+18·43	1 1 28·08
	α Arietis	12·2	26·5	41·0	55·4	9·8	57 40·98	+ 0·40	18·39	+18·44	1 57 59·82
	γ Virginis	36·8	50·2	3·5	16·7	29·9	33 3·42	+ 0·51	……	+18·54	12 33 22·47
	δ Virginis	36·3	49·7	3·2	16·4	29·7	47 3·06	+ 0·49	……	+18·54	12 47 22·09

(a) Micrometer 8^{r}·3555, 7^{r}·3555, 6^{r}·3555, and 5^{r}·3555 before Wire III.

(b) Micrometer 3^{r}·3555, 4^{r}·3555, 5^{r}·3555, 6^{r}·3555, 7^{r}·3555, and 8^{r}·3555 after Wire III.

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.		Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.		
		I.	II.	III.	IV.	V.				observed.	interpolated.			
		s.	s.	s.	s.	s.	m.	s.	s.	s.	s.	h.	m.	s.
Dec. 3	α Ursæ Minor. S.P.	38·5	50·0	0·0	11·5	20·0	0	59·85	+ 8·91	....	+ 18·55	13	1	27·31
	Microm.	......	55·0	......	......	......								
	Moon 2 Limb	13·6	27·3	41·0	54·6	8·4	5	40·98	+ 0·56	....	+ 18·55	13	6	0·09
Dec. 5	α Ursæ Minoris	55·0	3·5	14·5	26·0	35·0	1	14·64	− 8·03	....	+ 18·89	1	1	25·50
	Microm.	......	10·0	......	19·0	......								
	α Arietis	11·8	26·2	40·5	55·0	9·3	57	40·56	+ 0·40	+ 18·80	+ 18·90	1	57	59·86
	α Ceti	0·1	13·4	26·5	39·8	53·3	53	26·62	+ 0·49	19·00	+ 18·90	2	53	46·01
	α Ursæ Minor. S.P.	......	......	59·0	9·0	18·5	0	58·54	+ 8·91	....	+ 18·97	13	1	26·42
	Microm.	......	54·0	......	3·0	......								
Dec. 7	Sun 1 Limb	......	......	29·8	44·0	58·8	55	29·75	+ 0·61	....	+ 19·16	16	55	49·52
	Sun 2 Limb	22·0	36·7	51 2	5·6	20·2	57	51·14	+ 0·61	....	+ 19·16	16	58	10·91
	α Pegasi	51·0	4·5	18·3	31·8	45·7	56	18·26	+ 0·41	+ 19·05	+ 19·20	22	56	37·87
	γ Pegasi	3·2	16·8	30·5	44·3	58·2	4	30·60	+ 0·41	19·35	+ 19·21	0	4	50·22
	α Ursæ Minoris	54·0	3·0	14·0	24·0	36·0	1	14·14	− 7·32	....	+ 19·22	1	1	26·04
	Microm.	......	10·5	......	18·0	......								
	α Arietis	11·4	25·7	40·2	54·5	9·0	57	40·16	+ 0·37	19·23	+ 19·23	1	57	59·76
Dec. 8	α Lyræ	29·2	46·2	3·3	20·3	37·3	31	3·26	+ 0·28	+ 19·40	+ 19·39	18	31	22·93
	α Aquilæ	1·2	14·4	28·0	41·2	54·7	42	27·90	+ 0·44	19·51	+ 19·40	19	42	47·74
	α Cygni	53·5	12·1	30·8	49·4	8·3	35	30·83	+ 0·23	19·48	+ 19·41	20	35	50·47
	Microm.	......	21·5	......	40·2	......								
	α Aquarii	36·8	50·2	3·5	16·8	30·0	57	3·46	+ 0·49	19·34	+ 19·42	21	57	23·37
	Uranus	20·2	33·7	47·3	0·8	14·6	12	47·32	+ 0·54	....	+ 19·42	22	13	7·28
	α Cassiopeæ	10·4	34·0	57·4	21·2	44·8	30	57·57	+ 0·12	....	+ 19·43	0	31	17·12
	Microm.	......	45·8	......	9·4	......								
	α Ursæ Minoris	......	1·5	11·0	23·0	......	1	12·51	− 7·32	....	+ 19·44	1	1	24·63
	Microm.	......	8·0	......	17·5	......								
	ζ Ursæ Major. S P.	11·9	35·7	59·5	22·8	46·5	16	59·36	+ 0·70	....	+ 19·44	1	17	19·50
	Microm.	......	47·8	......	11·3	......								
	η Ursæ Major. S.P.	3·3	24·2	44·9	5·7	26·3	40	44·89	+ 0·64	....	+ 19·44	1	41	4·97
	Microm.	......	34·5	......	55·3	......								
	α Arietis	11·3	25·5	40·0	54·4	8·8	57	40·00	+ 0·37	19·38	+ 19·44	1	57	59·81
	α Ursæ Minor. S.P.	......	47·0	57·0	6·5	......	0	56·59	+ 8·14	....	+ 19·49	13	1	24·22
	Microm.	......	53·5	......	0·5	......								
	ζ Ursæ Majoris	12·5	36·2	0·0	23·6	47·4	16	59·97	+ 0·12	....	+ 19·49	13	17	19·58
	Microm.	......	48·3	......	11·8	......								
	η Ursæ Majoris	4·0	24·5	45·4	6·3	27·1	40	45·47	+ 0·18	....	+ 19·49	13	41	5·14
	Microm.	......	35·2	......	55·8	......								
	α Bootis	24·2	38·2	52·3	6·4	20·4	7	52·30	+ 0·38	+ 19·38	+ 19·49	14	8	12·17
	Venus 2 Limb	3·7	17·4	31·2	44·6	58·5	30	31·08	+ 0·54	....	+ 19·49	14	30	51·11
Dec. 9	Sun 1 Limb	57·3	1·8	16·3	30·8	45·2	4	16·28	+ 0·61	....	+ 19·51	17	4	36·40
	Sun 2 Limb	9·0	23·3	37·9	52·4	7·0	6	37·92	+ 0·61	....	+ 19·51	17	6	58·04
	α Ophiuchi	32·8	46·5	0·1	13·7	27·4	27	0·10	+ 0·42	+ 19·49	+ 19·51	17	27	20·03
	α Aquilæ	1·0	14·4	27·8	41·3	54·7	42	27·84	+ 0·44	19·57	+ 19·52	19	42	47·80
	α Aquarii	36·7	49·8	3·3	16·4	29·8	57	3·20	+ 0·49	19·59	+ 19·51	21	57	23·20
	Uranus	25·6	39·1	52·8	6·3	20·0	12	52·76	+ 0·54	....	+ 19·51	22	13	12·81
	α Andromedæ	7·5	22·7	37·8	52·8	8·1	59	37·78	+ 0·34	19·53	+ 19·50	23	59	57·62
	γ Pegasi	3·0	16·7	30·3	44·1	57·7	4	30·36	+ 0·41	19·57	+ 19·50	0	4	50·27
	α Cassiopeæ	10·3	33·8	57·5	21·0	44·8	30	57·47	+ 0·12	....	+ 19·50	0	31	17·09
	Microm.	......	45·7	......	9·2	......								
Dec. 10	Sun 1 Limb	11·7	26·1	40·4	54·8	9·4	8	40·48	+ 0·79	....	+ 19·42	17	9	0·69
	Sun 2 Limb	33·1	47·5	2·2	16·6	31·2	11	2·12	+ 0·79	....	+ 19·42	17	11	22·43
	α Ophiuchi	33·0	46·6	0·3	13·8	27·4	27	0·22	+ 0·54	+ 19·26	+ 19·42	17	27	20·18

Date.	OBJECT OBSERVED.	Wire.					Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock		Apparent Right Ascension observed.
		I.	II.	III.	IV.	V.			observed.	interpolated.	
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Dec. 10	δ Ursæ Minoris	……	37·0	20·0	4·0	……	24 20·54	– 4·48	………	+ 19·42	18 24 35·48
	Microm.	……	29·0	……	12·0	……					
	α Lyræ	29·0	46·2	3·2	20·1	37·1	31 3·10	+ 0·34	+ 19·49	+ 19·42	18 31 22·86
	Microm.	……	54·5	……	11·6	……					
	α Aquilæ	1·0	14·3	27·7	41·2	54·6	42 27·76	+ 0·56	19·53	+ 19·41	19 42 47·73
	α Aquarii	37·0	50·1	3·3	16·5	29·8	57 3·34	+ 0·63	19·30	+ 19·42	21 57 23·39
	Uranus	31·4	44·8	58·3	12·1	25·5	12 58·42	+ 0·70	………	+ 19·42	22 13 18·54
	α Piscis Australis	45·8	1·3	16·8	32·2	47·7	48 16·76	+ 0·85	………	+ 19·42	22 48 37·03
	α Pegasi	50·2	3·9	17·7	31·4	45·2	56 17·68	+ 0·52	19·48	+ 19·42	22 56 37·62
	α Cassiopeæ	10·2	33·9	57·3	21·0	44·8	30 57·44	+ 0·13	………	+ 19·43	0 31 17·00
	Microm.	……	45·7	……	9·2	……					
	α Ursæ Minoris	……	2·5	15·0	23·0	……	1 14·01	– 10·50	………	+ 19·44	1 1 22·95
	Microm.	……	9·0	……	19·0	……					
	ζ Ursæ Major. S.P.	12·0	35·6	59·2	22·8	46·4	16 59·21	+ 0·97	………	+ 19·44	1 17 19·62
	Microm.	……	47·4	……	11·1	……					
	η Ursæ Major. S.P.	3·2	24·1	44·8	5·4	26·2	40 44·76	+ 0·88	………	+ 19·44	1 41 5·08
	Microm.	……	34·4	……	55·2	……					
Dec. 13	Sun 1 Limb	25·6	39·8	54·3	8·7	23·0	21 54·28	+ 0·79	………	+ 19·77	17 22 14·84
	Sun 2 Limb	47·3	1·7	16·3	30·9	45·5	24 16·34	+ 0·79	………	+ 19·77	17 24 36·90
	δ Ursæ Minoris	……	35·5	19·0	4·0	……	24 19·84	– 4·48	………	+ 19·78	18 24 35·14
	Microm.	……	28·0	……	12·0	……					
	α Lyræ	28·8	45·7	2·8	19·9	37·0	31 2·83	+ 0·34	+ 19·76	+ 19·78	18 31 22·95
	Microm.	……	54·3	……	11·3	……					
	γ Aquilæ	41·3	54·8	8·3	21·8	35·3	38 8·30	+ 0·55	19·82	+ 19·79	19 38 28·64
	α Aquilæ	0·5	14·0	27·4	41·0	54·4	42 27·46	+ 0·56	19·82	+ 19·79	19 42 47·81
	Moon 1 Limb	13·2	27·1	41·5	55·8	10·1	26 41·54	+ 0·75	………	+ 19·80	22 27 2·09
	δ Aquarii	10·3	24·2	38·1	51·8	5·7	45 38·02	+ 0·73	………	+ 19·80	22 45 58·55
	α Ursæ Minoris	……	2·5	11·5	22·5	……	1 12·61	– 10·50	………	+ 19·81	1 1 21·92
	Microm.	……	8·0	……	17·0	……					
	ζ Ursæ Major. S.P.	11·3	35·1	59·0	22·6	46·3	16 58·90	+ 0·97	………	+ 19·81	1 17 19·68
	Microm.	……	47·2	……	10·8	……					
	η Ursæ Major. S.P.	3·0	23·6	44·5	5·2	25·9	40 44·46	+ 0·88	………	+ 19·81	1 41 5·15
	Microm.	……	34·2	……	54·8	……					
	α Arietis	10·7	25·0	39·4	53·8	8·2	57 39·42	+ 0·48	19·82	+ 19·81	1 57 59·71
	α Ceti	59·2	12·3	25·4	39·1	52·7	53 25·74	+ 0·60	19·76	+ 19·81	2 53 46·15
Dec. 14	δ Ursæ Minoris	……	36·5	19·5	3·0	……	24 19·74	– 4·48	………	+ 19·86	18 24 35·12
	Microm.	……	28·5	……	10·5	……					
	α Lyræ	28·4	45·5	2·7	19·8	36·8	31 2·67	+ 0·34	+ 19·91	+ 19·86	18 31 22·87
	Microm.	……	54·2	……	11·3	……					
	α Aquarii	36·5	49·7	2·8	15·9	29·3	57 2·84	+ 0·63	19·77	+ 19·87	21 57 23·34
	Uranus	55·7	9·3	22·8	36·3	49·9	13 22·80	+ 0·70	………	+ 19·87	22 13 43·37
	δ Aquarii	10·3	24·1	37·8	51·8	5·7	45 37·94	+ 0·73	………	+ 19·87	22 45 58·54
	α Pegasi	49·7	3·4	17·1	30·8	44·5	56 17·10	+ 0·52	20·01	+ 19·87	22 56 37·49
	ψ³ Aquarii	40·4	53·8	7·5	……	……	10 7·43	+ 0·69	………	+ 19·88	23 10 28·00
	α Andromedæ	7·3	22·3	37·4	52·5	7·6	59 37·42	+ 0·43	19·74	+ 19·89	23 59 57·74
	α Cassiopeæ	9·5	33·2	56·9	20·8	44·4	30 56·96	+ 0·13	………	+ 19·90	0 31 16·99
	α Ursæ Minoris	……	1·0	10·5	21·0	……	1 11·21	– 10·50	………	+ 19·91	1 1 20·62
	Microm.	……	7·0	……	15·0	……					
	ζ Ursæ Major. S.P.	11·6	35·2	58·9	22·3	45·5	16 58·73	+ 0·97	………	+ 19·91	1 17 19·61
	Microm.	……	46·9	……	10·7	……					
	α Ceti	59·0	12·3	25·4	39·0	52·3	53 25·60	+ 0·60	19·90	+ 19·94	2 53 46·14
	Venus 2 Limb	36·3	50·1	3·8	17·7	31·6	59 3·90	+ 0·72	………	+ 20·16	14 59 24·78
Dec. 15	Sun 1 Limb	16·0	30·4	45·1	59·6	14·0	30 45·02	+ 0·79	………	+ 20·21	17 31 6·02
	Sun 2 Limb	38·2	52·8	7·3	21·8	36·2	33 7·26	+ 0·79	………	+ 20·21	17 33 28·26
	29 Piscium	39·8	53·2	6·5	20·0	33·3	53 6·56	+ 0·65	………	+ 20·32	23 53 27·53

Date.	OBJECT OBSERVED.	Wire. I.	II.	III.	IV.	V.	Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock observed.	Correction of Clock interpolated.	Apparent Right Ascension observed.
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Dec. 15	α Andromedæ	6·5	21·7	36·4	52·2	7·0	59 36·76	+ 0·43	+ 20·38	+ 20·32	23 59 57·51
	γ Pegasi	1·8	15·4	29·3	42·9	56·3	4 29·14	+ 0·52	20·61	+ 20·33	0 4 49·99
	Moon 1 Limb	6·9	20·0	33·9	47·8	1·2	9 33·96	+ 0·66	....	+ 20·33	0 9 54·95
	α Coronæ borealis	54·7	9·5	24·5	39·4	54·4	27 24·50	+ 0·44	20·54	+ 20·56	15 27 45·50
	α Serpentis	24·9	38·2	51·7	5·1	18·5	35 51·68	+ 0·57	20·50	+ 20·57	15 36 12·82
	α Ophiuchi	31·8	45·4	59·2	12·7	26·3	26 59·08	+ 0·54	20·45	+ 20·59	17 27 20·21
Dec. 16	Sun 1 Limb	41·6	56·2	10·6	25·0	39·8	35 10·64	+ 0·79	....	+ 20·59	17 35 32·02
	Sun 2 Limb	3·8	18·2	32·8	47·3	1·8	37 32·78	+ 0·79	....	+ 20·59	17 37 54·16
	δ Ursæ Minoris	......	34·5	19·0	2·0	......	24 18·64	− 4·48	....	+ 20·60	18 24 34·76
	.... *Microm.*	......	27·0	......	10·0	......					
	α Lyræ	28·2	44·8	2·2	19·0	36·2	31 2·08	+ 0·34	+ 20·50	+ 20·60	18 31 23·02
	γ Aquilæ	40·4	53·9	7·4	21·0	34·4	38 7·42	+ 0·55	20·69	+ 20·61	19 38 28·58
	α Aquilæ	59·7	13·2	26·5	40·2	53·5	42 26·62	+ 0·56	20·65	+ 20·61	19 42 47·79
	β Aquilæ	28·5	41·8	55·2	8·5	22·1	46 55·22	+ 0·58	20·69	+ 20·61	19 47 16·41
	α Cygni	52·2	11·0	29·5	48·3	7·0	35 29·60	+ 0·28	20·53	+ 20·62	20 35 50·50
	Uranus	8·3	21·6	35·3	49·0	2·8	13 35·40	+ 0·70	....	+ 20·65	22 13 56·75
	20 Ceti	52·7	5·8	19·2	32·4	45·7	44 19·16	+ 0·63	....	+ 20·69	0 44 40·48
	Moon 1 Limb	5·9	19·7	33·0	46·7	0·4	57 33·14	+ 0·62	....	+ 20·70	0 57 54·46
	α Ursæ Minoris	......	58·0	7·0	18·5	30·0	1 8·30	− 10·50	....	+ 20·70	1 1 18·50
	.... *Microm.*	......	......	......	12·0	......					
	μ Piscium	51·0	4·3	17·6	30·8	44·3	21 17·60	+ 0·59	....	+ 20·70	1 21 38·89
	ν Piscium	9·3	22·3	35·5	49·2	2·7	32 35·80	+ 0·59	....	+ 20·71	1 32 57·10
Dec. 17	Sun 1 Limb	7·0	21·6	36·2	50·7	5·2	39 36·14	+ 0·79	....	+ 20·98	17 39 57·91
	Sun 2 Limb	29·6	44·2	58·6	13·2	27·8	41 58·68	+ 0·79	....	+ 20·98	17 42 20·45
	α Lyræ	27·7	44·6	1·6	18·4	35·5	31 1·59	+ 0·34	+ 20·99	+ 20·99	....
	.... *Microm.*	......	53·3	......	10·0	......					
Dec. 19	α Lyræ	26·5	43·6	0·5	17·5	34·5	31 0·57	+ 0·29	+ 22·07	+ 21·98	18 31 22·84
	.... *Microm.*	......	52·2	......	9·2	......					
	α Andromedæ	5·2	20·2	35·2	50·3	5·3	59 35·24	+ 0·35	21·93	+ 22·09	23 59 57·68
	γ Pegasi	0·1	14·2	27·5	41·4	55·1	4 27·66	+ 0·43	22·14	+ 22·09	0 4 50·18
	α Cassiopeæ	7·4	31·2	54·6	18·2	41·7	30 54·60	+ 0·13	....	+ 22·10	0 31 16·83
	.... *Microm.*	......	42·8	......	6·3	......					
	α Ursæ Minoris	......	48·0	3·5	13·5	......	1 2·31	− 7·67	....	+ 22·11	1 1 16·75
	.... *Microm.*	......	58·0	......	7·0	......					
	ζ Ursæ Major. S.P.	10·2	33·7	57·3	20·8	44·2	16 57·26	+ 0·74	....	+ 22·12	1 17 20·12
	.... *Microm.*	......	45·6	......	9·0	......					
	η Ursæ Major. S.P.	0·9	21·8	42·3	3·3	24·0	40 42·50	+ 0·67	....	+ 22·13	1 41 5·30
	.... *Microm.*	......	32·2	......	53·0	......					
	α Arietis	8·3	22·6	37·2	51·5	6·1	57 37·14	+ 0·39	+ 22·16	+ 22·14	1 57 59·67
	ε Arietis	2·8	17·1	31·5	46·1	0·3	49 31·56	+ 0·39	....	+ 22·15	2 49 54·10
	α Ceti	56·8	10·0	23·3	37·0	50·2	53 23·46	+ 0·48	22·15	+ 22·16	2 53 46·10
	δ Arietis	28·3	42·6	56·7	10·9	24·9	1 56·68	+ 0·40	....	+ 22·16	3 2 19·24
	Moon 1 Limb	37·2	51·6	6·2	20·7	35·0	23 6·14	+ 0·42	....	+ 22·17	3 23 28·73
	37 Tauri	13·4	27·6	41·8	56·2	10·5	54 41·90	+ 0·39	....	+ 22·18	3 55 4·47
	ω^2 Tauri	52·4	6·7	21·0	35·1	49·2	7 20·88	+ 0·39	....	+ 22·18	4 7 43·45
Dec. 20	Sun 1 Limb	......	39·8	54·1	8·7	23·1	52 54·16	+ 0·64	....	+ 22·48	17 53 17·28
	Sun 2 Limb	47·2	1·8	16·2	30·8	45·3	55 16·26	+ 0·64	....	+ 22·48	17 55 39·38
	α Lyræ	26·0	43·2	0·2	17·3	34·2	31 0·11	+ 0·29	+ 22·54	+ 22·50	18 31 22·90
	.... *Microm.*	......	51·5	......	8·4	......					
	α Aquilæ	58·0	11·4	24·8	38·3	52·0	42 24·90	+ 0·46	22·48	+ 22·52	19 42 47·88
	Moon 1 Limb	......	43·2	......	13·0	27·8	14 58·10	+ 0·41	....	+ 22·66	4 15 21·17
	(*a*) τ Tauri	......	49·0	3·8	......	......	32 3·62	+ 0·39	....	+ 22·66	4 32 26·67
Dec. 21	Sun 1 Limb	......	5·8	20·3	......	......	57 20·34	+ 0·64	....	+ 22·88	17 57 43·86

(*a*) An error of two seconds has been committed in this observation. It is rejected.

Date.	OBJECT OBSERVED.	Wire. I.	II.	III.	IV.	V.	Reduction to Mean of Wires.	Correction of Instrument.	Correction of Clock observed.	Correction of Clock interpolated.	Apparent Right Ascension observed.
		s.	s.	s.	s.	s	m. s.	s.	s.	s.	h. m. s.
Dec. 21	Sun 2 Limb	13·7	......	......	57·2	......	59 42·71	+ 0·64	....	+ 22·88	18 0 6·23
	α Lyræ	25·7	42·7	59·7	16·7	33·8	30 59·73	+ 0·29	+ 22·92	+ 22·89	18 31 22·91
	Microm.	......	51·2	......	8·3	......					
	α Ursæ Minoris	......	48·5	0·0	9·5	......	0 59·61	− 7·67	....	+ 23·00	1 1 14·94
	Microm.	......	54·5	......	4·0	......					
	ζ Ursæ Major. S. P.	9·0	32·6	56·2	19·8	43·4	16 56·23	+ 0·74	....	+ 23·00	1 17 19·97
	Microm.	......	44·5	......	8·1	......					
	η Ursæ Major. S. P.	0·1	21·0	41·6	2·8	23·4	40 41·77	+ 0·67	....	+ 23·01	1 41 5·45
	Microm.	......	31·5	......	52·0	......					
	α Arietis	7·3	21·7	36·2	50·7	5·0	57 36·18	+ 0·39	23·10	+ 23·01	1 57 59·58
	α Ceti	55·8	9·2	22·8	36·2	49·6	53 22·72	+ 0·48	22·88	+ 23·03	2 53 46·23
	α Tauri	43·9	57·3	11·3	25·4	39·2	26 11·42	+ 0·42	23·02	+ 23·07	4 26 34·91
	τ Tauri	36·4	50·6	5·2	19·6	34·1	32 5·18	+ 0·39	....	+ 23·07	4 32 28·64
	ι Tauri	30·2	44·4	58·6	12·8	27·2	52 58·64	+ 0·40	....	+ 23·08	4 53 22·12
	Moon 1 Limb	20·8	35·9	51·0	6·1	21·3	8 51·02	+ 0·38	....	+ 23·08	5 9 14·48
	β Tauri	6·5	21·4	36·5	51·6	7·2	15 36·64	+ 0·35	23·15	+ 23·08	5 16 0·07
	⁎ D + 24° 30′	3·3	18·0	32·7	47·3	2·0	37 22·66	+ 0·38	....	+ 23·09	5 37 56·13
	136 Tauri	12·2	26·9	42·2	57·1	12·0	42 42·08	+ 0·36	....	+ 23·09	5 43 5·53
Dec. 23	Sun 1 Limb	43·5	57·9	12·5	27·0	41·4	6 12·46	+ 0·64	....	+ 23·88	18 6 36·98
	Sun 2 Limb	5·9	20·3	34·8	49·3	3·6	8 34·78	+ 0·64	....	+ 23·88	18 8 59·30
	α Lyræ	24·7	41·7	58·7	15·6	32·7	30 58·71	+ 0·29	+ 23·95	+ 23·88	18 31 22·88
	Microm.	......	50·3	......	7·3	......					
	α Ursæ Minoris	......	45·5	54·5	8·5	......	0 56·71	− 7·67	....	+ 24·02	1 1 13·06
	Microm.	......	52·0	......	1·5	......					
	ζ Ursæ Major. S. P.	8·2	31·9	55·6	19·3	42·3	16 55·50	+ 0·74	....	+ 24·03	1 17 20·27
	Microm.	......	43·8	......	7·4	......					
	η Ursæ Major. S. P.	59·6	20·3	41·2	1·7	22·3	40 41·01	+ 0·67	....	+ 24·03	1 41 5·71
	Microm.	......	30·5	......	51·5	......					
	α Arietis	6·4	20·8	35·3	49·7	4·2	57 35·28	+ 0·39	23·98	+ 24·04	1 57 59·71
	β Tauri	5·5	20·5	35·7	50·8	6·2	15 35·74	+ 0·35	24·07	+ 24·10	5 16 0·19
	α Orionis	30·2	43·5	57·0	10·3	23·7	45 56·94	+ 0·46	24·13	+ 24·10	5 46 21·50
	δ Ursæ Minor. S. P.	......	21·0	4·0	50·0	......	24 5·06	+ 4·12	....	+ 24·10	6 24 33·28
	Microm.	......	14·0	......	57·0	......					
	α Lyræ S. P.	24·2	41·3	58·3	15·3	32·2	30 58·26	+ 0·57	....	+ 24·10	6 31 22·93
	Microm.	......	50·0	......	6·5	......					
	ε Geminorum	1·0	15·6	30·3	45·0	59·7	33 30·32	+ 0·37	....	+ 24·10	6 33 54·79
	α Canis Majoris	6·3	20·0	33·8	47·5	1·7	37 33·86	+ 0·59	24·10	+ 24·10	6 37 58·55
	Moon 2 Limb	19·5	34·7	50·2	5·5	20·8	1 50·14	+ 0·37	....	+ 24·11	7 2 14·62
	α Geminor. preceding	15·7	......	47·2	......	18·7	23 47·20	+ 0·33	24·05	+ 24·11	7 24 11·64
	α Geminor. following	......	31·7	......	3·3	......	23 47·50	+ 0·33		+ 24·11	7 24 11·94
	β Geminorum	25·7	40·8	55·8	10·9	26·2	34 55·88	+ 0·35	24·32	+ 24·11	7 35 20·34
Dec. 24	α Lyræ	24·3	41·3	58·4	15·4	32·4	30 58·43	+ 0·37	+ 24·15	+ 24·17	18 31 22·97
	Microm.	......	50·0	......	7·2	......					
	α Cygni	48·4	6·8	26·0	......	......	35 25·78	+ 0·30	24·23	+ 24·18	20 35 50·26
	α Aquarii	31·8	45·1	58·3	11·7	24·7	56 58·32	+ 0·70	24·14	+ 24·19	21 57 23·21
	α Ursæ Minoris	......	......	58·5	8·5	20·5	0 59·82	− 12·27	....	+ 24·25	1 1 11·80
	Microm.	......	55·5	......	6·5	......					
	α Arietis	6·0	20·4	34·8	49·5	3·8	57 34·90	+ 0·52	24·23	+ 24·26	1 57 59·68
Dec. 28	α Arietis	4·3	18·5	33·0	47·4	2·0	57 33·04	+ 0·52	+ 26·05	+ 25·96	1 57 59·52
	α Ceti	53·0	6·2	19·4	32·7	46·2	53 19·50	+ 0·66	25·89	+ 25·98	2 53 46·14
Dec. 31	α Ursæ Minoris	32·0	42·0	51·5	1·0	12·0	0 51·50	− 12·27	....	+ 27·73	1 1 6·96
	Microm.	......	47·0	......	55·5	......					
	α Arietis	2·4	16·8	31·3	45·7	0·2	57 31·28	+ 0·52	+ 27·78	+ 27·75	1 57 59·55
	α Ceti	51·3	4·4	17·8	31·0	44·2	53 17·74	+ 0·66	27·63	+ 27·78	2 53 46·18

Date.	OBJECT OBSERVED.	Wire I.	Wire II.	Wire III.	Wire IV.	Wire V.	Reduction to Mean of Wires.	Correction of Instru-ment.	Correction of Clock observed.	Correction of Clock interpo-lated.	Apparent Right Ascension observed.
		s.	s.	s.	s.	s.	m. s.	s.	s.	s.	h. m. s.
Dec. 31	α Tauri	38·5	52·7	6·7	20·3	34·2	26 6·48	+ 0·57	+27·85	+27·82	4 26 34·87
	α Ursæ Minor. S. P.	......	14·0	......	34·0	......	0 25·10	+13·51	....	+28·08	13 1 6·69
	............*Microm.*	......	22·0	... ..	29·0	......					
	θ Virginis	34·5	47·8	1·2	14·4	27·8	1 1·14	+ 0·72	....	+28·08	13 1 29·94
	α Virginis	40·2	53·7	7·1	20·5	34·2	16 7·14	+ 0·77	28·07	+28·08	13 16 35·99
	(*a*) Moon 1 Limb	37·4	51·3	5·3	19·0	32·8	30 5·16	+ 0·79	....	+28·09	13 30 34·04
	Moon 2 Limb	48·6	2·2	15·9	29·5	43·6	32 15·96	+ 0·79	....	+28·09	13 32 44·84
	κ Virginis	15·4	29·0	42·5	56·1	9·7	3 42·54	+ 0·76	....	+28·11	14 4 11·41
	α Bootis	15·8	29·9	44·2	58·3	12·4	7 44·12	+ 0·54	28·10	+28·11	14 8 12·77
	λ Virginis	20·5	34·2	47·8	1·5	15·2	9 47·84	+ 0·78	....	+28·11	14 10 16·73

(*a*) Dark Limb.

ELEMENTS

FOR

REDUCING THE OBSERVATIONS

MADE WITH

THE TRANSIT INSTRUMENT;

AND

MEAN RIGHT ASCENSIONS OF THE STARS OBSERVED,

For January 1, 1836.

ERROR OF COLLIMATION DEDUCED FROM OBSERVATIONS OF α URSÆ MINORIS.

Date.	Illuminated end of Axis.	$t - t'$	$c =$
1836,		s.	s.
February 17	East ··· West	+ 0·17	0·00
April 21	West··· East	+ 1·30	∓ 0·02
August 9	East ··· West	+ 5·71	∓ 0·08
November 30	West··· East	+ 5·75	∓ 0·08

ERROR OF COLLIMATION EMPLOYED IN THE REDUCTIONS.

PERIOD.		$c =$	Illuminated End of Axis.
Beginning	Ending		
1836,	1836,	s.	
January 1	February 17	0·00	East.
February 17	March 8	0·00	West.
March 9	April 1	− 0·01	West.
April 2	21	− 0·03	West.
21	June 30	+ 0·01	East.
July 1	August 9	+ 0·07	East.
August 9	November 30	− 0·09	West.
November 30	December 31	+ 0·07	East.

INCLINATION OF AXIS, AND CORRECTION OF TIMES OF TRANSIT.

Date.	West End high.	Correction.	Date.	West End high.	Correction.
1835,	″	s.	1836,	″	s.
December 29	+ 1·73	+ 0·21	July 12	− 1·41	− 0·17
1836,			August 1	− 1·14	− 0·14
January 9	+ 1·21	+ 0·14	10	− 1·47	− 0·18
30	+ 2·51	+ 0·30	29	− 1·00	− 0·12
February 13	+ 2·44	+ 0·29	September 17	+ 0·18	+ 0·02
20	+ 2·49	+ 0·30	October 3	+ 0·16	+ 0·02
March 12	+ 1·86	+ 0·22	20	− 0·11	− 0·01
April 9	+ 1·16	+ 0·14	November 11	+ 1·23	+ 0·15
21	+ 0·52 (*a*)	+ 0·06	30	+ 1·80 (*a*)	+ 0·21
22	+ 0·09	+ 0·01	December 1	+ 1·76	+ 0·21
May 12	− 1·36	− 0·16	17	+ 0·86	+ 0·10
18	− 0·14	− 0·02	1837,		
31	− 1·39	− 0·17	January 28	+ 1·96	+ 0·23
July 1	− 1·41	− 0·17			

(*a*) Before reversion.

Deviation of the Instrument from the Pole, or the Quantity n, deduced from Observations.

Date.	Stars.	$n =$
1836, Jan. 6	α Ursæ Minoris	−0·25 − 0·98 *c*
	β Tauri	
	α Orionis	
7	γ Pegasi	−0·27 − 0·98 *c*
	α Ursæ Minoris	
	α Arietis	
	δ Ursæ Minoris	−0·28 − 1·00 *c*
8	δ Ursæ Minor. S. P.	
	δ Ursæ Minoris	
9	α Ursæ Minoris	−0·29 − 1·00 *c*
	δ Ursæ Minor. S. P.	
11	α Ursæ Minoris	−0·34 − 1·00 *c*
	δ Ursæ Minor. S. P.	
12	α Ursæ Minoris	−0·37 − 1·00 *c*
	α Ursæ Minor. S. P.	
	β Orionis	−0·49 − 1·06 *c*
	β Tauri	
	δ Ursæ Minor. S. P.	
13	β Orionis	−0·61 − 1·06 *c*
	β Tauri	
	δ Ursæ Minor. S. P.	
14	α Orionis	−0·60 − 1·07 *c*
	δ Ursæ Minor. S. P.	
	α Canis Majoris	
15	α Andromedæ	−0·46 − 0·98 *c*
	α Ursæ Minoris	
	α Arietis	
	δ Ursæ Minor. S. P.	−0·50 − 1·00 *c*
	δ Ursæ Minoris	
16	δ Ursæ Minor. S. P.	
18	δ Ursæ Minoris	−0·32 − 0·96 *c*
	α Lyræ	
	α Aquilæ	
22	α Andromedæ	−0·35 − 0·98 *c*
	γ Pegasi	
	α Ursæ Minoris	
26	α Ursæ Minoris	−0·28 − 1·00 *c*
	δ Ursæ Minoris	
29	α Ursæ Minoris	−0·33 − 0·98 *c*
	α Tauri	
	α Aurigæ	
Feb. 1	α Ursæ Minoris	−0·43 − 1·00 *c*
	δ Ursæ Minor. S. P.	
2	α Orionis	−0·52 − 1·06 *c*
	δ Ursæ Minor. S. P.	
	α Canis Minoris	
4	α Andromedæ	−0·41 − 0·98 *c*
	γ Pegasi	
	α Ursæ Minoris	
1836, Feb. 5	δ Ursæ Minoris	−0·40 − 1·00 *c*
6	δ Ursæ Minor. S. P.	
9	α Ursæ Minoris	−0·38 − 1·00 *c*
	δ Ursæ Minor. S. P.	
10	α Andromedæ	−0·33 − 0·98 *c*
	α Ursæ Minoris	
	β Tauri	
11	α Pegasi	−0·34 − 0·98 *c*
	α Andromedæ	
	α Ursæ Minoris	
	α Herculis	−0·38 − 0·96 *c*
	δ Ursæ Minoris	
12	α Andromedæ	
	γ Pegasi	−0·40 − 0·98 *c*
	α Ursæ Minoris	
	β Orionis	
16	α Andromedæ	−0·32 − 0·98 *c*
	α Ursæ Minoris	
	α Arietis	
17	α Ursæ Minoris	−0·31 − 1·00 *c* (*a*)
	δ Ursæ Minor. S. P.	
20	α Ursæ Minoris	−0·40 − 1·00 *c*
	δ Ursæ Minor. S. P.	
22	α Ursæ Minoris	−0·39 − 1·00 *c*
	δ Ursæ Minor. S. P.	
23	α Ursæ Minoris	−0·38 − 1·00 *c*
	δ Ursæ Minor. S. P.	
29	α Aurigæ	−0·50 − 1·05 *c*
	δ Ursæ Minor. S. P.	
	α Canis Majoris	
March 2	α Orionis	−0·50 − 1·06 *c*
	δ Ursæ Minor. S. P.	
	α Canis Majoris	
3	α Andromedæ	−0·39 − 0·98 *c*
	α Ursæ Minoris	
	α Arietis	
	β Tauri	−0·41 − 1·06 *c*
	δ Ursæ Minor. S. P.	
	α Canis Majoris	
4	α Ursæ Minoris	−0·37 − 0·97 *c*
	α Ceti	
	α Hydræ	
8	α Ursæ Minoris	−0·36 − 0·98 *c*
	α Arietis	
	β Tauri	
9	α Ursæ Minoris	−0·49 − 0·98 *c*
	α Aurigæ	
	β Orionis	

(*a*) Instrument reversed.

Date.	Stars.	$n =$
1836, Mar. 9	α Orionis	$-0^{s}{\cdot}54 - 1{\cdot}06\,c$
	δ Ursæ Minor. S.P.	
	α Canis Majoris	
10	δ Ursæ Minoris	−0·49 − 0·97 c
	α Lyræ	
11	α Ursæ Minoris	−0·51 − 0·98 c
	α Aurigæ	
	β Orionis	
14	α Ursæ Minoris	−0·52 − 0·97 c
	α Orionis	
	α Canis Majoris	
	δ Ursæ Minor. S.P.	−0·52 − 1·04 c
	α Canis Minoris	
	β Geminorum	
15	α Ursæ Minoris	−0·50 − 0·97 c
	α Orionis	
	α Canis Majoris	
	δ Ursæ Minor. S.P.	−0·52 − 1·04 c
	α Canis Minoris	
	β Geminorum	
16	β Tauri	−0·54 − 1·04 c
	α Orionis	
	δ Ursæ Minor. S.P.	
17	α Ursæ Minoris	−0·42 − 0·98 c
	β Tauri	
	α Canis Minoris	
	δ Ursæ Minor. S.P.	−0·55 − 1·05 c
	α Leonis	
	β Leonis	
19	α Ursæ Minoris	−0·49 − 0·98 c
	α Canis Minoris	
	β Geminorum	
22	α Ursæ Minoris	−0·41 − 0·98 c
	α Tauri	
	α Aurigæ	
	β Tauri	−0·45 − 1·04 c
	α Orionis	
	δ Ursæ Minor. S.P.	
23	α Orionis	−0·42 − 1·06 c
	δ Ursæ Minor. S.P.	
	α Canis Majoris	
24	α Ursæ Minoris	−0·41 − 0·98 c
	α Aurigæ	
	β Orionis	
	δ Ursæ Minor. S.P.	−0·43 − 1·06 c
	α Canis Majoris	
	α Canis Minoris	
25	α Orionis	−0·47 − 1·06 c
	δ Ursæ Minor. S.P.	
	α Canis Majoris	
26	α Aurigæ	−0·57 − 1·05 c
	δ Ursæ Minor. S.P.	
	α Canis Majoris	
29	α Ursæ Minoris	−0·47 − 0·98 c
	α Arietis	
	α Aurigæ	
1836, Mar. 29	β Tauri	$-0^{s}{\cdot}58 - 1{\cdot}06\,c$
	δ Ursæ Minor. S.P.	
	α Canis Majoris	
April 1	α Leonis	−0·51 − 1·02 c
	β Leonis	
	α Ursæ Minor. S.P.	
2	α Ursæ Minor. S.P.	−0·57 − 1·02 c
	α Virginis	
	α Bootis	
4	α Ursæ Minoris	−0·53 − 0·98 c
	α Aurigæ	
	β Geminorum	
12	α Ursæ Minor. S.P.	−0·46 − 1·02 c
	α Virginis	
	α Bootis	
	α Ursæ Minoris	−0·37 − 0·98 c
13	α Tauri	
	β Orionis	
	α Canis Minoris	−0·41 − 1·02 c
	β Geminorum	
	α Ursæ Minor. S.P.	
14	α Ursæ Minoris	−0·32 − 0·98 c
15	α Aurigæ	
	β Tauri	
	α Hydræ	−0·39 − 1·02 c
	α Leonis	
	α Ursæ Minor. S.P.	
18	β Leonis	−0·44 − 1·02 c
	α Ursæ Minor. S.P.	
	α Bootis	
20	β Leonis	−0·30 − 1·02 c
	α Ursæ Minor. S.P.	
	α Virginis	
21	β Leonis	−0·31 − 1·02 c
	α Ursæ Minor. S.P.	
	α Ursæ Minor. S.P.	−0·27 − 1·02 c (a)
	α Bootis	
	α Ursæ Minoris	−0·26 − 0·98 c
22	β Geminorum	
	α Hydræ	
	β Leonis	−0·40 − 1·02 c
	α Ursæ Minor. S.P.	
	α Bootis	
23	α Hydræ	−0·36 − 1·02 c
	β Leonis	
	α Ursæ Minor. S.P.	
24	α Ursæ Minoris	−0·32 − 0·96 c
25	α Canis Majoris	
	α Hydræ	
	α Ursæ Minoris	−0·31 − 0·98 c
26	α Aurigæ	
	α Canis Majoris	
	α Ursæ Minor. S.P.	−0·53 − 1·02 c
	α Bootis	
27	α Ursæ Minoris	−0·33 − 0·98 c
28	α Aurigæ	
	α Canis Majoris	

(a) Instrument reversed.

Date.	STARS.	$n=$	Date.	STARS.	$n=$
1836, April 28	β Leonis		1836, May 15	α Ursæ Minoris	
	α Ursæ Minor. S.P.	$-0^{\mathrm{s}}{\cdot}38 - 1{\cdot}02\,c$	16	α Aurigæ	$-0^{\mathrm{s}}{\cdot}25 - 0{\cdot}98\,c$
	α Bootis			β Tauri	
	α Ursæ Minoris			α Canis Minoris	
29	α Tauri	$-0{\cdot}35 - 0{\cdot}98\,c$		β Geminorum	$-0{\cdot}23 - 1{\cdot}02\,c$
	α Aurigæ			α Ursæ Minor. S.P.	
May 1	α Ursæ Minoris			α Ursæ Minoris	
2	α Aurigæ	$-0{\cdot}41 - 0{\cdot}98\,c$	17	α Canis Majoris	$-0{\cdot}26 - 0{\cdot}97\,c$
	β Tauri			α Canis Minoris	
	β Leonis		18	β Leonis	
	α Ursæ Minor. S.P.	$-0{\cdot}45 - 1{\cdot}02\,c$		α Ursæ Minor. S.P.	$-0{\cdot}17 - 1{\cdot}02\,c$
	α Bootis			α Virginis	
	α Ursæ Minoris			α Andromedæ	
	α Canis Minoris	$-0{\cdot}36 - 0{\cdot}98\,c$		α Ursæ Minoris	$-0{\cdot}18 - 0{\cdot}98\,c$
	β Geminorum		19	α Aurigæ	
5	α Ursæ Minor. S.P.	$-0{\cdot}37 - 1{\cdot}02\,c$		β Leonis	
	α Bootis			α Ursæ Minor. S.P.	$-0{\cdot}28 - 1{\cdot}02\,c$
	α Ursæ Minoris			α Virginis	
6	α Aurigæ	$-0{\cdot}34 - 0{\cdot}98\,c$	23	β Geminorum	
	β Tauri			α Ursæ Minor. S.P.	$-0{\cdot}29 - 1{\cdot}02\,c$
	α Canis Majoris			α Bootis	
	β Leonis	$-0{\cdot}34 - 1{\cdot}03\,c$		α Ursæ Minoris	
	α Ursæ Minor. S.P.		24	α Aurigæ	$-0{\cdot}26 - 0{\cdot}98\,c$
	α Cygni			α Canis Majoris	
	α Ursæ Minoris	$-0{\cdot}35 - 0{\cdot}98\,c$		γ Pegasi	
7	α Tauri			α Ursæ Minoris	$-0{\cdot}29 - 0{\cdot}98\,c$
	α Orionis		25	α Aurigæ	
	α Ursæ Minor. S.P.	$-0{\cdot}30 - 1{\cdot}02\,c$		β Leonis	
	α Aquarii			α Ursæ Minor. S.P.	$-0{\cdot}32 - 1{\cdot}02\,c$
8	α Ursæ Minoris			α Bootis	
9	α Aurigæ	$-0{\cdot}30 - 0{\cdot}98\,c$		α Ursæ Minoris	
	α Orionis		26	α Aurigæ	$-0{\cdot}27 - 0{\cdot}98\,c$
	β Leonis			α Orionis	
	α Ursæ Minor. S.P.	$-0{\cdot}40 - 1{\cdot}02\,c$		β Leonis	
	α Bootis			α Ursæ Minoris	$-0{\cdot}27 - 1{\cdot}02\,c$
	α Andromedæ			α Virginis	
	α Ursæ Minoris	$-0{\cdot}37 - 0{\cdot}98\,c$		α Ursæ Minor. S.P.	
10	α Aurigæ		27	α Aurigæ	$-0{\cdot}29 - 0{\cdot}98\,c$
	α Canis Majoris			α Orionis	
	β Leonis	$-0{\cdot}28 - 1{\cdot}03\,c$		β Geminorum	
	α Ursæ Minor. S.P.			α Ursæ Minor. S.P.	$-0{\cdot}26 - 1{\cdot}02\,c$
11	α Ursæ Minoris			α Virginis	
12	α Aurigæ	$-0{\cdot}24 - 0{\cdot}98\,c$		α Ursæ Minoris	
	β Tauri		28	α Aurigæ	$-0{\cdot}30 - 0{\cdot}98\,c$
	α Canis Majoris			α Orionis	
	β Leonis	$-0{\cdot}29 - 1{\cdot}03\,c$		α Canis Minoris	
	α Ursæ Minor. S.P.			β Geminorum	$-0{\cdot}29 - 1{\cdot}02\,c$
13	β Leonis			α Ursæ Minor. S.P.	
	α Ursæ Minor. S.P.	$-0{\cdot}26 - 1{\cdot}02\,c$	31	α Canis Minoris	
	α Virginis			β Geminorum	$-0{\cdot}27 - 1{\cdot}02\,c$
	α Bootis			α Ursæ Minor. S.P.	
	α Ursæ Minoris	$-0{\cdot}26 - 0{\cdot}97\,c$	June 1	α Aurigæ	$-0{\cdot}31 - 1{\cdot}01\,c$
14	α Canis Majoris			α Ursæ Minor. S.P.	
	β Leonis		6	α Ursæ Minor. S.P.	
	α Ursæ Minor. S.P.	$-0{\cdot}24 - 1{\cdot}02\,c$		α Virginis	$-0{\cdot}23 - 1{\cdot}03\,c$
	α Bootis			α Bootis	

Date.	STARS.	n =
1836, June 8	β Leonis	-0^{s}·19 − 1·03 *c*
	α Ursæ Minor. S.P.	
	α Virginis	
10	β Geminorum	−0·20 − 1·02 *c*
	α Ursæ Minor. S. P.	
12	α Ursæ Minor. S.P.	−0·21 − 1·03 *c*
	α Virginis	
	α Bootis	
15	α Ursæ Minor. S.P.	−0·10 − 1·03 *c*
	α Virginis	
	α Bootis	
17	α Ursæ Minor. S.P.	−0·12 − 1·03 *c*
	α Bootis	
	α² Libræ	
20	α Ursæ Minor. S.P.	−0·15 − 1·03 *c*
	α Virginis	
	α Bootis	
24	β Leonis	−0·15 − 1·03 *c*
	α Ursæ Minor. S.P.	
	α Virginis	
25	α Ursæ Minor. S.P.	−0·17 − 1·03 *c*
	α Virginis	
	α Bootis	
28	α Ursæ Minor. S.P.	−0·13 − 1·03 *c*
	α Virginis	
	α Bootis	
	α² Libræ	−0·28 − 0·94 *c*
	α Coronæ borealis	
	δ Ursæ Minoris	
29	α Ursæ Minor. S.P.	−0·15 − 1·03 *c*
	α Bootis	
	α² Libræ	
	α Serpentis	−0·28 − 0·96 *c*
	δ Ursæ Minoris	
	α Lyræ	
July 1	α Ophiuchi	−0·23 − 0·96 *c*
	δ Ursæ Minoris	
	α Lyræ	
4	β Leonis	−0·19 − 1·02 *c*
	α Ursæ Minor. S. P.	
	α Virginis	
6	β Leonis	−0·18 − 1·02 *c*
	α Ursæ Minor. S. P.	
	α Virginis	
13	α Ursæ Minor. S. P.	−0·21 − 1·00 *c*
	δ Ursæ Minoris	
18	α Ursæ Minor. S. P.	−0·26 − 1·00 *c*
	δ Ursæ Minoris	
20	α Ursæ Minor. S. P.	−0·30 − 1·00 *c*
	δ Ursæ Minoris	
25	α Ophiuchi	−0·33 − 0·96 *c*
	δ Ursæ Minoris	
	α Lyræ	
Aug. 1	α Ophiuchi	−0·28 − 0·95 *c*
	δ Ursæ Minoris	
	α Aquilæ	
1836, Aug. 4	α Ursæ Minor. S. P.	-0^{s}·29 − 1·00 *c*
	δ Ursæ Minoris	
8	α Ursæ Minor. S. P.	−0·25 − 1·00 *c*
	δ Ursæ Minoris	
9	α Ursæ Minor. S. P.	−0·43 − 1·00 *c* (*a*)
	δ Ursæ Minoris	
10	α Ursæ Minor. S. P.	−0·36 − 1·00 *c*
	δ Ursæ Minoris	
11	α Ursæ Minor. S. P.	−0·43 − 1·00 *c*
	δ Ursæ Minoris	
12	α Ursæ Minor. S. P.	−0·42 − 1·00 *c*
	δ Ursæ Minoris	
13	α Ursæ Minor. S. P.	−0·36 − 1·00 *c*
	δ Ursæ Minoris	
15	α Ursæ Minor. S. P.	−0·35 − 1·00 *c*
16	δ Ursæ Minoris	
18	α Ursæ Minor. S. P.	−0·32 − 1·00 *c*
	δ Ursæ Minoris	
20	α Ursæ Minor. S. P.	−0·42 − 1·00 *c*
	δ Ursæ Minoris	
23	α Ursæ Minor. S. P.	−0·39 − 1·00 *c*
	δ Ursæ Minoris	
24	α Ursæ Minor. S. P.	−0·40 − 1·00 *c*
	δ Ursæ Minoris	
27	α Ursæ Minor. S. P.	−0·41 − 1·00 *c*
	δ Ursæ Minoris	
29	α Ursæ Minor. S. P.	−0·43 − 1·00 *c*
	δ Ursæ Minoris	
Sept. 2	α Ursæ Minor. S. P.	−0·38 − 1·00 *c*
	δ Ursæ Minoris	
6	α Ursæ Minor. S. P.	−0·36 − 1·00 *c*
	δ Ursæ Minoris	
13	δ Ursæ Minoris	−0·25 − 1·00 *c*
14	α Ursæ Minor. S. P.	
16	α Ursæ Minor. S. P.	−0·24 − 1·00 *c*
	δ Ursæ Minoris	
20	α Ursæ Minor. S. P.	−0·23 − 1·00 *c*
	δ Ursæ Minoris	
29	α Ursæ Minor. S. P.	−0·24 − 1·00 *c*
	δ Ursæ Minoris	
30	α Ursæ Minor. S. P.	−0·20 − 1·00 *c*
	δ Ursæ Minoris	
Oct. 4	α Ursæ Minor. S. P.	−0·26 − 1·00 *c*
	δ Ursæ Minoris	
6	α Ursæ Minor. S. P.	−0·26 − 1·00 *c*
	δ Ursæ Minoris	
11	α Ursæ Minor. S. P.	−0·27 − 1·00 *c*
12	δ Ursæ Minoris	
13	α Ursæ Minor. S. P.	−0·38 − 1·00 *c*
14	δ Ursæ Minoris	
	α Ursæ Minor. S. P.	−0·39 − 1·00 *c*
16	δ Ursæ Minoris	
18	α Ursæ Minoris	−0·40 − 1·00 *c*
	α Ursæ Minor. S. P.	
19	α Ursæ Minoris	−0·33 − 1·00 *c*
	α Ursæ Minor. S. P.	

(*a*) Instrument reversed.

Date.	STARS.	$n =$
1836, Oct. 23	α Ursæ Minoris α Ursæ Minor. S. P.	$-\overset{s.}{0}{\cdot}34 - 1{\cdot}00\,c$
24	α Ursæ Minoris α Ursæ Minor. S. P.	$-0{\cdot}33 - 1{\cdot}00\,c$
25	α Ursæ Minoris α Ursæ Minor. S. P.	$-0{\cdot}35 - 1{\cdot}00\,c$
26	α Ursæ Minoris α Ursæ Minor. S. P.	$-0{\cdot}36 - 1{\cdot}00\,c$
27	α Ursæ Minoris α Ursæ Minor. S. P.	$-0{\cdot}38 - 1{\cdot}00\,c$
29 30	α Ursæ Minoris α Ursæ Minor. S. P.	$-0{\cdot}44 - 1{\cdot}00\,c$
Nov. 1 2	α Ursæ Minor. S. P. α Ursæ Minoris	$-0{\cdot}48 - 1{\cdot}00\,c$
3 4	α Ursæ Minor. S. P. α Ursæ Minoris	$-0{\cdot}42 - 1{\cdot}00\,c$
 5	α Ursæ Minor. S. P. α Ursæ Minoris	$-0{\cdot}39 - 1{\cdot}00\,c$
6 7	α Ursæ Minor. S. P. α Ursæ Minoris	$-0{\cdot}44 - 1{\cdot}00\,c$
10 11	α Ursæ Minoris α Ursæ Minor. S. P.	$-0{\cdot}40 - 1{\cdot}00\,c$
13 14	α Ursæ Minor. S. P. α Ursæ Minoris	$-0{\cdot}30 - 1{\cdot}00\,c$
15 16	α Ursæ Minoris α Ursæ Minor. S. P.	$-0{\cdot}40 - 1{\cdot}00\,c$
21	α Ursæ Minoris α Ursæ Minor. S. P.	$-0{\cdot}36 - 1{\cdot}00\,c$
27 28	α Ursæ Minor. S. P. α Ursæ Minoris	$-0{\cdot}46 - 1{\cdot}00\,c$
29 30	α Ursæ Minor. S. P. α Ursæ Minoris	$-0{\cdot}42 - 1{\cdot}00\,c$
Dec. 2 3	α Ursæ Minor. S. P. α Ursæ Minoris	$-0{\cdot}25 - 1{\cdot}00\,c$ (*a*)
5	α Ursæ Minoris α Ursæ Minor. S. P.	$-0{\cdot}21 - 1{\cdot}00\,c$
8	α Ursæ Minoris α Ursæ Minor. S. P.	$-0{\cdot}21 - 1{\cdot}00\,c$
10	α Ophiuchi δ Ursæ Minoris α Lyræ	$-0{\cdot}28 - 0{\cdot}96\,c$
1836, Dec. 10	α Aquarii α Pegasi α Ursæ Minoris	$-\overset{s.}{0}{\cdot}31 - 0{\cdot}98\,c$
13	δ Ursæ Minoris α Lyræ γ Aquilæ	$-0{\cdot}29 - 0{\cdot}96\,c$
	α Aquilæ α Ursæ Minoris α Arietis	$-0{\cdot}33 - 0{\cdot}98\,c$
14	δ Ursæ Minoris α Lyræ α Aquarii	$-0{\cdot}30 - 0{\cdot}96\,c$
	α Andromedæ α Ursæ Minoris α Ceti	$-0{\cdot}31 - 0{\cdot}98\,c$
15 16	α Ophiuchi δ Ursæ Minoris α Lyræ	$-0{\cdot}29 - 0{\cdot}96\,c$
	β Aquilæ α Cygni α Ursæ Minoris	$-0{\cdot}29 - 0{\cdot}98\,c$
19	γ Pegasi α Ursæ Minoris α Arietis	$-0{\cdot}23 - 0{\cdot}98\,c$
21	α Lyræ α Ursæ Minoris α Arietis	$-0{\cdot}22 - 0{\cdot}98\,c$
23	α Ursæ Minoris δ Ursæ Minor. S. P.	$-0{\cdot}22 - 1{\cdot}00\,c$
24	α Aquarii α Ursæ Minoris α Arietis	$-0{\cdot}32 - 0{\cdot}98\,c$
31	α Ursæ Minoris α Ursæ Minor. S. P.	$-0{\cdot}35 - 1{\cdot}00\,c$
1837, Jan. 1	α Coronæ borealis α Serpentis δ Ursæ Minoris	$-0{\cdot}39 - 0{\cdot}96\,c$

(*a*) Instrument reversed.

From the foregoing determinations, mean values of n have been obtained, and have been employed in the reductions for the different periods, as in the subjoined Table.

PERIOD.		$n=$	PERIOD		$n=$
Beginning	Ending		Beginning	Ending	
1836,	1836,	s. s.	1836,	1836,	s. s.
January 3	January 11	$-0{\cdot}29-0{\cdot}99\,c=-0{\cdot}29$	July 17	August 9	$-0{\cdot}28-0{\cdot}99\,c=-0{\cdot}35$
12	16	$-0{\cdot}50-1{\cdot}03\,c=-0{\cdot}50$	August 9	September 7	$-0{\cdot}39-1{\cdot}00\,c=-0{\cdot}30$
18	February 17	$-0{\cdot}37-0{\cdot}99\,c=-0{\cdot}37$	September 12	October 12	$-0{\cdot}24-1{\cdot}00\,c=-0{\cdot}15$
February 17	March 8	$-0{\cdot}40-1{\cdot}01\,c=-0{\cdot}40$	October 13	30	$-0{\cdot}37-1{\cdot}00\,c=-0{\cdot}28$
March 9	April 1	$-0{\cdot}49-1{\cdot}02\,c=-0{\cdot}48$	31	November 11	$-0{\cdot}43-1{\cdot}00\,c=-0{\cdot}34$
April 2	21	$-0{\cdot}41-1{\cdot}01\,c=-0{\cdot}38$	November 13	14	$-0{\cdot}30-1{\cdot}00\,c=-0{\cdot}21$
21	30	$-0{\cdot}35-1{\cdot}00\,c=-0{\cdot}36$	15	30	$-0{\cdot}41-1{\cdot}00\,c=-0{\cdot}32$
May 1	May 9	$-0{\cdot}36-1{\cdot}00\,c=-0{\cdot}37$	30	December 5	$-0{\cdot}23-1{\cdot}00\,c=-0{\cdot}30$
10	31	$-0{\cdot}26-1{\cdot}00\,c=-0{\cdot}27$	December 7	9	$-0{\cdot}21-1{\cdot}00\,c=-0{\cdot}28$
June 1	June 12	$-0{\cdot}23-1{\cdot}02\,c=-0{\cdot}24$	10	17	$-0{\cdot}30-0{\cdot}97\,c=-0{\cdot}37$
14	25	$-0{\cdot}14-1{\cdot}03\,c=-0{\cdot}15$	19	23	$-0{\cdot}22-0{\cdot}99\,c=-0{\cdot}29$
26	29	$-0{\cdot}21-0{\cdot}99\,c=-0{\cdot}22$	24	31	$-0{\cdot}35-1{\cdot}00\,c=-0{\cdot}42$
July 1	July 13	$-0{\cdot}20-1{\cdot}00\,c=-0{\cdot}27$			

MEAN CORRECTION OF THE CLOCK ADOPTED IN THE REDUCTIONS.

Date.	Time by Clock.	Correction.	No. of Stars.	Date.	Time by Clock.	Correction.	No. of Stars.	Date.	Time by Clock.	Correction.	No. of Stars.
1836,	h. m.	s.		1836,	h. m.	s.		1836,	h. m.	s.	
Jan. 6	5 32	−55·70	2	Feb. 4	3 6	+11·69	5	Mar. 14	7 45	+47·17	6
7	2 38	57·40	5	5	13 31	12·11	4	15	7 28	47·52	6
8	18 32	60·62	1	6	4 49	12·21	6	16	5 18	47·91	4
9	20 10 (*a*)	+ 3·27	2	9	1 46	12·39	7	17	8 21	48·53	5
	2 0 (*b*)	13·13	5	10	11 40	13·60	5	18	8 21	49·11	4
10	20 36	13·10	1	11	5 41	14·29	5	19	8 32	49·85	4
11	4 53	12·75	5	12	3 15	15·27	5	21	7 32	51·27	2
12	3 48	12·26	5	13	9 39	16·76	2	22	5 30	51·87	6
13	3 6	12·13	5	16	3 29	20·73	5	23	6 21	52·65	7
14	5 53	12·21	5	17	4 48	21·93	5	24	6 22	53·03	5
15	2 37	12·00	5	20	5 34	26·02	5	25	6 58	53·45	5
16	2 2	12·22	6	22	4 38	28·58	5	26	7 21	53·85	6
18	19 37	12·61	3	23	4 45	29·64	4	27	9 39	54·83 †	2
22	23 22	12·57	5	25	7 0	31·65	2	29	4 48	55·80	5
24	0 41	12·22	3	29	5 42	36·26	6	30	11 40	56·83	1
25	7 30	12·23	3					31	6 6	57·30	5
26	6 6	12·37	4	Mar. 2	5 52	38·44	6				
27	2 48	12·58	4	3	4 47	39·60	6	April 1	9 9	58·12	4
28	8 40	12·14	5	4	7 57	40·82	3	2	9 24	58·67	6
29	5 8	12·00	5	5	6 34	41·69	5	4	6 20 (*c*)	− 0·01	2
30	5 34	12·01	5	7	5 44	43·28	4	6	6 38	+ 1·26	1
				8	5 37	44·02	5	7	11 41	2·03	1
Feb. 1	2 58	11·58	6	9	5 52	44·48	6	11	6 7	3·53	5
2	6 59	11·29	5	11	3 8	45·47	5	12	11 41	4·64	4
3	5 9	11·46	3	12	9 59	46·14	1	13	5 59	5·02	5

(*a*) Clock put back 1 minute; 4 seconds lost.
(*b*) Pendulum adjusted.

(*c*) Clock put forward 1 minute.

Date.	Time by Clock.	Correction.	No. of Stars.
1836,	h. m.	s.	
April 15	7 27	+ 7·05	5
18	9 12	9·09	5
20	8 21	10·24	5
21	12 54	10·91	2
22	10 33	11·18	5
23	8 14	11·74	5
24	9 39	12·84	2
25	10 26	13·67	4
26	8 37	14·56	3
27	4 51	15·24	2
28	9 22	15·96	4
29	5 26	16·38	5
30	11 40	16·86	1
May 1	15 4	18·01	3
2	8 33	18·77	5
3	7 32	19·70	2
5	14 8	21·03	1
6	6 53	21·45	5
7	3 25	22·48 †	5
	23 14	23·13 †	4
9	6 30	24·32 †	5
	17 12	24·23	5
10	6 52	24·62	5
11	7 30	25·38	3
12	6 52	26·29	5
13	12 16	27·81	4
14	9 30	29·21	5
15	6 30	30·64	5
16	6 14	32·72	5
17	8 20	35·06	4
18	9 15	37·50 †	5
	10 4	37·32	3
19	3 16	39·29 †	5
	9 3	39·59	5
20	16 54	42·79	3
23	8 0	49·41	5
24	6 41	51·98	4
25	7 31	54·59	7
26	8 19	57·39	6
27	7 39 (*a*)	0·07	6
28	6 31	2·45	5
29	15 32 (*b*)	23·94	2
30	8 1	24·97	5
31	6 30	25·89	5
June 1	5 4	26·84	1
2	9 59	28·13	1
6	13 42	31·86	2
7	12 16	32·59	3
8	12 14	33·63	5
9	14 8	34·52	1
10	7 35	34·84	1
11	14 8	35·79	1
12	9 34	36·36	4
14	21 13	38·83	3
15	14 38	39·63	5
16	13 44	40·35	3

Date.	Time by Clock.	Correction.	No. of Stars.
1836,	h. m.	s.	
June 17	14 58	+ 41·51	4
20	11 44	44·32	5
22	15 46	46·18	5
23	13 1	47·08	5
24	13 26	47·94	4
25	13 30	48·79	5
26	15 31	49·84	2
28	13 30	52·00	5
29	15 40	53·27	5
July 1	17 20	55·52	4
2	7 32	56·13	2
4	12 45	58·76	5
6	13 53 (*a*)	0·99	5
8	14 8	3·46	1
10	5 6	6·68	2
11	5 32	7·74	4
13	17 59	9·57	2
18	15 6	14·48	2
19	20 54	15·80	4
20	17 42	16·45	3
22	17 7	18·30	1
25	17 42	21·47	3
26	17 10	22·40	4
30	18 51	26·09	2
Aug. 1	14 23	27·93	7
4	15 47	30·71	5
	4 33	31·68 †	5
5	15 57	31·78	5
6	17 52	32·83	6
8	11 13	34·80	9
9	16 25	36·23	6
10	17 34	37·30	5
11	16 50	38·25	5
12	18 29	38·72	5
13	17 59	39·05	2
14	7 35	39·57	1
16	19 1	40·39	5
17	17 58	40·42	4
18	17 20	40·48	5
19	17 14	40·48	5
20	17 21	40·72	4
22	18 29	41·22	5
23	1 3	41·40	2
24	19 1	41·65	5
25	22 56	42·28	1
26	19 1	42·22	5
27	18 21	42·52	5
29	19 33	43·06	5
30	18 31	43·38	1
Sept. 1	20 26	44·27	5
2	19 47	44·16	6
5	17 23	44·73	5
6	19 40	44·98	3
12	22 56	47·23	1
13	19 1	47·79	5

Date.	Time by Clock.	Correction.	No. of Stars.
1836,	h. m.	s.	
Sept. 14	14 7	+ 48·16	1
15	19 33	48·99	5
16	16 9	49·33	5
17	18 45	50·11	5
19	19 43	51·14	5
20	18 25	51·69	5
21	20 27	52·08	4
23	21 57	53·18	1
24	21 1	53·41	5
28	21 46	54·84	2
29	19 8	54·86	2
30	19 33	55·19	5
Oct. 2	7 11	55·23	3
4	18 37	55·44	5
5	3 58	55·86	2
6	19 33	56·11	5
7	14 7	56·20	1
8	19 34	56·50	3
10	19 34	57·32	5
11	23 20	57·31	3
12	19 38	57·47	5
13	19 58	57·23	5
14	18 50	57·51	5
15	0 2	57·86	2
16	19 33	58·35	5
17	18 11	59·20 †	6
18	0 2	59·72 †	2
19	18 53	60·01	5
20	17 58 (*a*)	0·36	2
21	22 58	1·25	3
22	22 57	1·84	1
23	1 2	2·64	2
24	19 55	3·15	5
25	18 7	3·70	6
26	0 0	4·23	1
27	20 7	4·65	5
29	22 14	5·28	2
31	17 9	6·11	3
Nov. 1	7 28	6·79	3
2	16 50	7·07	5
3	21 10	7·38	6
4	20 6	7·50	6
5	23 41	7·65	3
7	16 23	7·99	6
8	22 18	8·49	5
9	7 6	8·80	2
10	0 15	9·26	4
11	1 58	9·66	1
13	0 24	10·48	4
14	21 15	10·74	6
15	22 12	11·26	3
17	19 1	11·86	4
18	23 40	12·33	3
20	1 14	13·42	4
21	0 15	13·94	4
28	22 3	16·75	4

(*a*) Clock put forward 1 minute. | (*b*) Pendulum adjusted.

Date.	Time by Clock.	Correction.	No. of Stars.	Date.	Time by Clock.	Correction.	No. of Stars.	Date.	Time by Clock.	Correction.	No. of Stars.
1836,	h. m.	s.		1836,	h. m.	s.		1836,	h. m.	s.	
Nov. 29	8 47	+17·14	3	Dec. 8	21 21	+19·42	5	Dec. 19	23 53	+22·09	5
30	21 6	17·27	6	9	20 13	19·52	6	20	19 6	22·51	2
				10	20 7	19·41	5	21	1 49	23·01	5
Dec. 1	19 54	17·76	5	13	22 8	19·80	5	23	4 10	24·09	7
2	6 20	18·26	3	14	22 51	19·87	5	24	21 45	24·19	4
3	22 38	18·41	5	15	9 43	20·50	5	28	2 26	25·97	2
5	2 26	18·90	2	16	19 39	20·61	5	31	7 20	27·89	5
7	0 20	19·21	3	17	18 31	20·99	1				

MEAN RIGHT ASCENSIONS OF THE STARS OBSERVED IN THE YEAR 1836, REDUCED TO JANUARY 1, 1836.

γ Pegasi.	
	h. m. s.
Jan. 7	0 4 48·00
9	47·93
11	47·84
13	47·88
15	47·78
22	47·80
24	47·82
26	47·83
Feb. 4	47·96
12	47·92
May 7	47·90
24	47·91
Sept. 24	47·86
Oct. 11	47·99
14	47·58
15	47·89
18	47·87
23	47·94
Nov. 3	47·93
4	47·87
5	47·90
8	47·90
9	47·95
10	47·90
14	47·87
15	47·77
18	47·95
20	47·84
21	47·89
28	47·81
Dec. 3	48·01
7	47·80
9	47·87
15	47·66
19	47·89

44 Piscium.	
	h. m. s.
Oct. 21	0 16 59·82

α Cassiopeæ.	
Jan. 22	0 31 14·40
24	14·52
Mar. 19	14·80
May 9	14·71
24	14·52
Dec. 8	14·58
9	14·57
10	14·51
14	14·59
19	14·56

α Cassiopeæ S. P.	
April 20	12 31 14·81
23	14·36
26	14·13
28	14·15
29	14·17
May 2	14·37
6	14·55
9	14·44
10	14·21
13	14·77
14	14·67
18	14·71
19	14·80
23	14·67

20 Ceti.	
Sept. 24	0 44 37·36
Nov. 18	37·70
Dec. 16	37·81

ε Piscium.	
	h. m. s.
Nov. 18	0 54 26·56

80 Piscium.	
Oct. 23	0 59 55·60

α Ursæ Minoris.	
Jan. 6	1 1 4·76
7	5·90
9	3·75
11	6·23
12	1·59
15	4·85
22	5·47
26	2·10
29	4·62
Feb. 1	6·59
4	7·60
6	6·65
9	5·22
10	4·62
11	5·12
12	7·42
16	4·36
17	5·36
20	5·61
22	5·24
23	4·98
Mar. 3	5·90
4	5·35
8	4·85
9	6·48
11	7·00

α Ursæ Minoris.	
	h. m. s.
Mar. 14	1 1 7·20
15	6·61
17	3·85
19	6·25
22	3·55
24	3·36
29	5·35
April 4	10.40
5	11·08
12	4·97
14	3·12
21	3·32
24	4·81
25	4·74
27	5·55
28	6·28
May 1	7·91
2	6·54
5	5·43
6	5·91
8	4·26
9	6·81
11	5·70
13	6·65
15	6·05
16	6·30
18	3·23
23	6·33
24	7·47
25	6·56
26	7·33
27	7·66
Oct. 17	5·26
18	7·50
19	5·21

α Ursæ Minoris.

	h.	m.	s.
Oct. 21	1	1	5·52
22			3·82
23			5·01
24			4·84
25			5·59
26			6·47
27			6·27
29			10·47
Nov. 2			8·76
4			5·35
5			4·28
7			7·02
8			7·02
10			5·07
14			5·89
15			6·69
18			1·61
19			5·09
20			4·88
21			3·38
28			8·20
30			5·67
Dec. 3			6·37
5			4·99
7			6·79
8			6·02
10			5·63
13			6·59
14			5·98
16			5·25
19			5·64
21			5·29
23			4·90
24			4·37
31			4·86

α Ursæ Minoris S. P.

	h.	m.	s.
Jan. 12	13	1	11·38
April 1			5·17
2			0·44
12			4·31
13			6·41
15			6·96
18			5·25
20			10·14
21			9·65
22			4·19
23			6·17
26		0	59·81
28		1	5·31
29			1·31
May 2			3·00

α Ursæ Minoris S. P.

	h.	m.	s.
May 5	13	1	5·96
6			7·12
7			8·51
9			4·55
10			5·39
12			5·39
13			6·18
14			6·80
16			7·61
18			9·53
19			5·51
23			5·37
25			4·21
26			6·17
27			6·42
28			5·46
31			6·07
June 28			9·18
29			8·34
July 4			5·73
6			6·24
13			5·98
18			6·81
20			4·92
Aug. 4			6·63
8			7·13
9			5·40
10			7·39
11			4·74
12			5·39
13			6·36
15			7·09
18			8·57
20			2·63
23			6·35
24			6·19
25			6·73
26			4·88
27			5·95
29			5·29
Sept. 1			7·24
2			6·83
6			7·24
14			7·00
16			7·22
20			7·17
29			5·88
30			8·16
Oct. 3			6·56
4			6·71
6			5·80
7			5·85
8			7·08
11			5·97
13			6·34

α Ursæ Minoris S. P.

	h.	m.	s.
Oct. 14	13	1	5·30
18			5·23
19			7·88
23			6·91
24			8·09
25			6·76
26			7·01
27			5·62
30			5·73
31			2·05
Nov. 1			4·96
3			6·46
4			7·36
6			6·33
11			7·12
13			6·19
16			7·59
21			7·35
27			4·49
29			4·24
Dec. 2			4·86
3			5·90
5			6·22
8			5·93
31			4·98

μ Piscium.

Dec. 16	1	21	36·04

ν Piscium.

Dec. 16	1	32	54·18

ο Piscium.

Nov. 20	1	36	44·37

α Arietis.

Jan. 7	1	57	56·71
9			56·45
12			56·77
15			56·52
24			56·62
Feb. 16			56·47
17			56·43
22			56·61
Mar. 3			56·58
7			56·59
8			56·58
29			56·61

α Arietis.

	h.	m.	s.
Oct. 23	1	57	56·56
29			56·54
Nov. 10			56·62
17			56·60
20			56·67
21			56·64
28			56·57
30			56·73
Dec. 2			56·47
3			56·61
5			56·66
7			56·56
8			56·62
13			56·55
19			56·54
21			56·47
23			56·62
24			56·59
28			56·47
31			56·53

ξ¹ Ceti.

Oct. 23	2	4	19·00
24			18·96

ξ¹ Arietis.

Jan. 9	2	16	2·31
15			2·24
Oct. 25			2·06

38 Arietis.

Nov. 20	2	36	1·92
21			2·01

π Arietis.

Oct. 24	2	40	9·11
25			9·17
Nov. 20			8·94
21			9·20

ε Arietis.

Oct. 24	2	49	50·84
25			50·74
Dec. 19			50·63

α Ceti.

	h.	m.	s.
Jan. 9	2	53	42·96
Feb. 23			42·85
Mar. 4			42·78
Aug. 4			42·96
Nov. 20			42·72
Dec. 2			42·78
5			42·68
13			42·83
14			42·82
19			42·79
21			42·93
28			42·87
31			42·94

δ Arietis.

Feb. 22	3	2	15·72
23			15·79
Nov. 21			15·85
Dec. 19			15·72

ζ Arietis.

Feb. 22	3	5	29·13

α Persei S. P.

June 17	15	12	39·13
22			39·11
23			39·16
28			39·35
29			39·32
July 4			39·07
6			39·13

64 Arietis.

Nov. 21	3	14	38·24

η Tauri.

Oct. 25	3	37	44·76

37 Tauri.

Feb. 23	3	55	0·62
Oct. 25			0·57
Dec. 19			0·62

ω² Tauri.

	h.	m.	s.
Dec. 19	4	7	39·58

δ¹ Tauri.

Jan. 27	4	13	29·28

ε Tauri.

Jan. 27	4	19	2·59

α Tauri.

Jan. 14	4	26	31·05
16			31·03
22			31·17
27			30·85
29			31·13
Mar. 22			31·06
23			31·15
April 13			30·91
20			31·16
27			31·09
29			31·03
May 7			31·03
July 10			30·97
11			30·93
Aug. 4			30·97
Dec. 21			31·06
31			30·98

τ Tauri.

Sept. 2	4	32	24·55
Dec. 21			24·60

ι Tauri.

Dec. 21	4	53	18·04

α Aurigæ.

	h.	m.	s.
Jan. 9	5	4	35·05
13			35·14
16			34·97
29			34·93
30			35·12
Feb. 1			35·13
Feb. 3	5	4	35·06
4			35·18
6			34·96
9			35·06
16			34·80
17			35·11
20			35·17
22			35·08
23			34·35 (*a*)
29			35·15
Mar. 2			35·04
5			35·07
9			35·04
11			35·10
16			35·09
22			34·93
24			35·04
26			35·31
29			34·99
31			35·11
April 4			35·06
11			35·12
15			35·07
18			35·10
23			35·12
26			34·88
28			34·98
29			35·05
May 2			35·06
6			35·01
7			35·16
9			35·10
10			35·10
11			35·14
12			35·12
15			35·06
16			35·07
18			34·96
19			35·08
21			35·07
23			35·17
24			35·12
25			35·04
26			34·92
27			34·99
28			35·09
30			35·01
31			35·08
June 11			35·07
14			34·95
July 19			34·96
July 31	5	4	35·05
Aug. 4			34·91
7			34·98

α Aurigæ S. P.

July 1	17	4	35·04
4			34·95
6			34·81
25			35·19
Aug. 1			35·02
8			35·21
12			35·07
22			35·46

β Orionis.

Jan. 12	5	6	39·43
13			39·61
14			39·51
16			39·60
28			39·59
29			39·49
30			39·50
Feb. 1			39·56
3			39·49
4			39·51
6			39·49
9			39·51
12			39·46
16			39·75
17			39·49
20			39·44
22			39·50
23			39·39
Mar. 2			39·53
5			39·49
9			39·55
11			39·54
16			39·62
22			39·56
24			39·54
29			39·58
31			39·67
April 11			39·55
13			39·56
July 19			39·36
Aug. 4			39·54
7			39·57

(*a*) Rejected.

109 Tauri.	
	h. m. s.
Jan. 28	5 9 25·69

β Tauri.	
Jan. 6	5 15 55·73
7	55·62
11	56·06
12	55·67
13	55·75
15	55·87
16	55·76
27	55·80
28	55·76
29	55·65
30	55·73
Feb. 1	55·84
3	55·85
4	55·78
9	55·75
10	55·66
12	55·73
16	55·88
17	55·73
20	55·72
22	55·80
23	55·71
Mar. 2	55·76
3	55·69
5	55·75
7	55·90
8	55·89
9	55·70
11	55·81
16	55·80
17	55·86
22	55·74
23	55·84
29	55·69
31	55·85
April 11	55·78
13	55·79
15	55·75
27	55·72
29	55·85
May 2	55·61
6	55·58
7	55·79
10	55·75
12	55·87
16	55·74
18	55·70
19	55·88
July 11	55·73
31	55·75
	h m. s.
Aug. 4	5 15 55·80
7	55·78
Sept. 2	55·73
Dec. 21	55·72
23	55·82

α Leporis.	
Jan. 9	5 25 30·06
27	30·10
28	30·21
30	30·10
Féb. 1	29·87
4	29·93
6	29·83
9	29·90
12	29·94
16	30·07
17	30·02
20	29·83
22	30·00
Mar. 2	29·76
7	29·92
9	29·90
14	30·03
16	29·98

ζ Tauri.	
Mar. 23	5 27 50·88
Sept. 2	50·79

∗ D. + 24° 30′.	
Dec. 21	5 37 51·85

∗ D + 36° 15′.	
Jan. 16	5 41 21·40

136 Tauri.	
Dec. 21	5 43 1·14

α Orionis.	
Jan. 6	5 46 17·73
7	17·68
11	17·60
14	17·67
15	18·03
	h. m. s.
Jan. 26	5 46 17·90
27	17·68
28	17·83
29	17·87
30	17·57
Feb. 1	17·60
2	17·64
6	17·62
11	17·65
12	17·80
20	17·60
22	17·61
23	17·75
Mar. 2	17·54
5	17·73
7	17·56
8	17·52
9	17·54
11	17·68
14	17·67
15	17·69
16	17·58
22	17·78
23	17·72
25	17·83
April 20	17·70
29	17·59
May 6	17·72
7	17·66
9	17·64
10	17·61
11	17·77
12	17·59
15	17·69
16	17·77
18	17·68
19	17·73
23	17·69
26	17·70
27	17·73
28	17·66
30	17·72
31	17·76
June 7	17·68
12	17·83
July 10	17·71
11	17·77
Aug. 7	17·71
Dec. 23	17·64

∗ D. + 24° 46′.	
Jan. 9	5 48 31·72

κ Aurigæ.	
	h. m. s.
Jan. 29	6 4 55·80
30	55·78

η Geminorum.	
Mar. 25	6 4 58·67

μ Geminorum.	
Jan. 29	6 13 2·35
30	2·35
Mar. 25	2·26

ε Geminorum.	
Dec. 23	6 33 50·41

α Canis Majoris.	
Jan. 12	6 37 55·24
14	55·32
28	55·24
30	55·25
Feb. 2	55·26
6	55·25
9	55·22
11	55·41
17	55·37
20	55·24
25	55·04
29	55·04
Mar. 2	55·20
3	55·09
9	55·29
14	55·09
15	55·25
18	55·32
23	55·24
24	55·41
25	55·33
26	55·36
29	55·23
April 2	55·36
20	55·38
25	55·10
26	55·25
28	55·13
29	55·18
May 2	55·24
6	55·36
9	55·14
10	55·25

α Canis Majoris.

Date	h.	m.	s.
May 12	6	37	55·24
14			55·23
15			55·21
17			55·19
18			55·31
19			55·33
24			55·21
25			55·08
26			55·22
27			55·10
28			55·21
31			55·13
June 8			55·26
16			55·03
20			55·17
July 11			55·17
Oct. 2			55·05
Dec. 23			55·14

∗ D. + 39° 45′.

Feb. 1	6	44	29·70
2			29·84
9			29·92

∗ D. + 39° 44′.

Feb. 1	6	47	30·17
2			30·27
9			30·31

ω¹ Geminorum.

Oct. 2	6	52	24·80

τ Geminorum.

Jan. 30	7	0	41·55

δ Geminorum.

Jan. 30	7	10	19·30
Mar. 25			19·32
26			19·29

∗ D. + 16° 59′.

Jan. 7	7	14	21·80
14			21·86

ι Geminorum.

Date	h.	m.	s.
Mar. 25	7	15	31·76
26			31·75

∗ D. + 17° 9′.

Jan. 7	7	16	50·93
14			51·54
16			51·24
Feb. 2			51·07

α Geminorum.
Mean of the two Stars.

Jan. 25	7	24	7·23
Feb. 2			7·21
5			7·19
6			7·24
25			7·23
29			7·25
Mar. 2			7·24
3			7·38
9			7·21
14			7·35
15			7·31
17			7·20
19			7·34
22			7·12
23			7·12
25			7·24
26			7·15
April 1			7·40
2			7·22
Oct. 2			7·14
Dec. 23			7·19

Observed difference of Right Ascension of the two Stars = $0^{s}{\cdot}51$.

∗ D. + 48° 22′.

Jan. 14	7	27	23·23

α Canis Minoris.

Date	h.	m.	s.
Jan. 14	7	30	42·57
25			42·73
Feb. 2			42·61
29			42·65
Mar. 3			42·59
8			42·77
14			42·61
Mar. 15	7	30	42·67
17			42·56
18			42·57
19			42·52
21			42·76
23			42·63
24			42·59
25			42·57
26			42·56
31			42·69
April 2			42·75
11			42·73
13			42·75
18			42·91
23			42·67
May 3			42·77
9			42·69
14			42·68
15			42·72
16			42·74
17			42·60
19			42·72
23			42·67
24			42·67
25			42·73
27			42·79
28			42·75
30			42·69
31			42·68
July 2			42·75

β Geminorum.

Date	h.	m.	s.
Jan. 25	7	35	16·16
Feb. 2			16·22
5			16·31
29			16·23
Mar. 8			16·20
14			16·17
15			16·15
19			16·12
21			16·22
23			15·93
24			16·13
25			15·96
26			15·99
31			16·07
April 1			16·25
2			16·11
4			16·22
11			16·25
13			16·32
15			16·42
April 18	7	35	16·25
22			16·18
23			16·37
May 3			16·21
9			16·31
14			16·30
15			16·25
16			16·22
17			16·16
19			16·21
23			16·17
24			16·19
25			16·26
26			16·29
27			16·20
28			16·17
30			16·19
31			16·22
June 23			16·34
July 2			16·23
Aug. 23			16·22
Oct. 2			16·26
Dec. 23			15·97

φ Geminorum.

Feb. 1	7	43	27·20
April 23			27·06

6 Cancri.

Feb. 1	7	53	26·28
Mar. 26			25·91
27			25·94

λ Cancri.

Mar. 26	8	10	46·23
27			46·38

γ Cancri.

April 23	8	33	46·99
24			47·12
Oct. 4			47·16

ι Ursæ Majoris.

Feb. 13	8	47	56·41

ξ Cancri.	h. m. s.
Feb. 1	8 59 55·35
Mar. 27	55·04
April 23	55·12
24	55·16

83 Cancri.	
Mar. 27	9 9 49·03
Nov. 1	49·02

α Hydræ.	
Feb. 13	9 19 31·57
Mar. 4	31·60
18	31·68
27	31·61
April 12	31·83
15	31·55
22	31·66
23	31·60
24	31·66
25	31·53
Nov. 1	31·67

λ Leonis.	
April 24	9 22 21·06
25	20·89

ψ Leonis.	
April 24	9 34 47·51

η Leonis.	
Mar. 29	9 58 22·73
May 23	22·88

α Leonis.	
Feb. 13	9 59 37·81
Mar. 7	37·76
15	37·68
17	37·79
18	37·77
26	37·80
27	37·77
April 1	37·59
12	37·81
15	37·61

α Leonis.	h. m. s.
April 22	9 59 37·95
24	37·71
May 13	37·89
20	37·81
June 20	37·88
25	37·87
28	37·82
July 4	37·77
19	37·79
Oct. 5	37·84

γ Leonis.	
Mar. 2	10 10 55·12
29	54·89
May 23	55·19
Oct. 5	55·37

ε Leonis.	
Mar. 2	10 24 10·21

52 Leonis.	
Mar. 29	10 37 43·37
30	43·70

α Ursæ Majoris.	
Mar. 8	10 53 32·85
14	32·62
15	32·38
18	32·74
23	32·10
April 1	32·15
15	31·30
18	31·62
20	32·45
21	32·47
22	32·73
30	32·42
May 2	32·74

α Ursæ Majoris S. P.	
Mar. 23	22 53 32·77
25	32·59
Oct. 25	32·95
27	32·65
Nov. 2	32·25
3	32·40
4	32·86

α Ursæ Majoris S. P.	h. m. s.
Nov. 5	22 53 32·67
7	32·68
8	32·54
10	32·52
14	32·35

χ Leonis.	
Mar. 29	10 56 32·76
30	33·12
May 23	33·28

73 Leonis.	
Mar. 2	11 7 16·71
3	16·88

ι Leonis.	
Mar. 2	11 15 22·23
3	22·15

ν Virginis.	
Mar. 30	11 37 25·61
May 25	25·72

β Leonis.	
Mar. 4	11 40 41·26
5	41·29
14	41·31
17	41·41
19	41·43
April 1	41·16
18	41·16
20	41·14
21	41·31
22	41·22
23	41·29
25	41·56
28	41·51
May 2	41·41
6	41·39
9	41·24
10	41·30
11	41·22
12	41·25
13	41·24
14	41·27
17	41·46

β Leonis.	h. m. s.
May 18	11 40 41·48
19	41·32
20	41·38
25	41·54
26	41·41
June 8	41·35
24	41·33
July 4	41·39
6	41·38
18	41·31
Aug. 9	41·56

β Virginis.	
May 25	11 42 9·25

γ Ursæ Majoris.	
March 5	11 45 9·96
8	10·38
9	9·96
17	10·27
19	10·28
April 1	10·02
15	9·89
20	10·13
21	10·29
22	10·22
23	10·15
28	10·55
29	10·03
30	9·86
May 2	10·13
6	10·24
Nov. 3	10·32
4	10·10

γ Ursæ Majoris S. P.	
Oct. 27	23 45 9·96
Nov. 2	10·09
3	10·70
4	10·29
5	10·36
7	10·35
10	10·43
14	10·31
21	10·43
28	10·16
30	10·42

	h.	m.	s.
7 Virginis.			
Mar. 30	11	51	32·87
ο Virginis.			
Mar. 3	11	56	51·05
4			51·02
April 28			51·25
η Virginis.			
Mar. 3	12	11	30·92
4			30·95
April 28			31·19
16 Virginis.			
May 25	12	12	1·29
26			1·32
γ Virginis.			
April 1	12	33	21·14
May 25			21·18
26			21·11
Dec. 2			21·05
3			20·90
δ Virginis.			
April 28	12	47	20·70
29			20·72
Dec. 2			20·57
3			20·61
θ Virginis.			
April 28	13	1	27·80
May 26			27·79
27			27·94
Dec. 31			27·62
α Virginis.			
Jan. 11	13	16	33·66
April 2			33·70
12			33·59
20			33·47
May 9			33·63
13			33·77
18			33·70
19			33·69
26			33·61
27			33·74

	h.	m.	s.
α Virginis.			
June 6	13	16	33·78
8			33·62
12			33·74
15			33·75
20			33·73
23			33·75
24			33·70
25			33·72
28			33·67
July 4			33·66
6			33·72
Nov. 29			33·74
Dec. 31			33·75
ζ Ursæ Majoris.			
May 2	13	17	18·53
6			18·34
12			18·51
14			18·65
16			18·48
23			18·42
31			18·45
Dec. 8			18·46
ζ Ursæ Majoris S.P.			
Dec. 8	1	17	18·40
10			18·43
13			18·36
14			18·24
19			18·53
21			18·29
23			18·50
74 Virginis.			
Jan. 11	13	23	26·63
82 Virginis.			
Jan. 11	13	33	0·73
April 2			0·63
η Ursæ Majoris.			
April 12	13	41	3·93
13			3·83
20			3·87
21			4·37
23			4·01
25			3·31

	h.	m.	s.
η Ursæ Majoris.			
April 26	13	41	4·20
28			4·06
May 2			4·21
6			4·17
Dec. 8			4·24
η Ursæ Majoris S.P.			
Dec. 8	1	41	4·08
10			4·12
13			4·08
19			4·00
21			4·07
23			4·24
κ Virginis.			
April 29	14	4	9·38
May 27			9·62
28			9·60
Dec. 31			9·42
ι Virginis.			
April 29	14	7	25·42
α Bootis.			
April 2	14	8	10·87
12			10·77
18			10·93
21			10·96
22			10·90
25			10·85
26			11·05
28			10·89
May 1			10·95
2			10·97
9			11·01
13			10·98
14			10·92
18			11·05
23			11·07
25			10·99
30			10·96
June 6			10·93
8			10·85
12			10·94
15			10·86
17			10·96
20			10·96
22			10·93
23			10·96

	h.	m.	s.
α Bootis.			
June 24	14	8	11·00
25			11·04
28			10·99
29			11·08
July 4			10·95
6			10·89
Aug. 4			10·99
5			11·02
6			10·83
8			11·00
9			11·00
19			11·06
27			11·22
Sept. 2			11·07
5			11·10
6			11·06
16			11·01
20			11·15
Oct. 8			11·63
Nov. 1			11·03
6			10·98
9			11·00
13			11·21
16			10·92
27			11·02
29			11·08
Dec. 2			11·01
8			11·08
31			10·98
λ Virginis.			
May 27	14	10	15·20
28			14·96
Dec. 31			14·76
α^2 Libræ.			
May 18	14	41	49·10
June 15			49·01
17			48·94
20			48·98
22			48·89
23			49·07
24			49·05
25			48·88
28			49·08
29			49·01
July 4			49·13
6			49·12
Aug. 9			48·94
ξ^2 Libræ.			
May 1	14	47	52·70

β Ursæ Minoris.	h.	m.	s.
June 22	14	51	15·65
23			15·77
28			15·69
29			15·58
July 4			16·06
6			15·69

ι^1 Libræ.			
May 28	15	2	53·31
June 25			53·20

γ^1 Libræ.			
May 28	15	26	21·77

α Coronæ borealis.			
May 1	15	27	44·74
29			44·76
June 7			44·91
8			44·78
15			44·79
17			44·65
22			44·66
23			44·53
25			44·86
26			44·73
28			44·77
29			44·77
July 19			44·82
Aug. 4			44·72
5			44·87
6			44·66
8			44·79
10			44·73
11			44·71
17			44·78
18			44·82
19			44·78
Sept. 16			44·81
Oct. 4			44·75
10			45·05
14			44·89
17			44·88
19			44·91
25			44·88
31			44·77
Nov. 2			44·69
3			44·68
4			44·80
7			44·81
Dec. 15			44·76

η Libræ.	h.	m.	s.
June 25	15	34	51·37

α Serpentis.			
May 1	15	36	11·71
29			11·69
June 7			11·59
15			11·77
17			11·94
26			11·70
29			11·68
July 6			11·68
26			11·71
Aug. 4			11·76
5			11·63
8			11·71
10			11·72
11			11·69
18			11·80
Sept. 16			11·53
Oct. 14			11·73
19			11·76
25			11·65
Nov. 2			11·62
4			11·58
7			11·61
Dec. 15			11·77

θ Libræ.			
June 25	15	44	29·67
26			29·81

α Scorpii.			
July 1	16	19	22·01
Aug. 1			21·87
4			21·79
20			21·88

α Herculis.	h.	m.	s.
Feb. 10	17	7	10·30
11			10·21
June 14			10·33
16			10·46
22			10·54
July 1			10·23
20			10·31
25			10·33
26			10·32
30			10·28
Aug. 1	17	7	10·30
5			10·26
8			10·31
11			10·21
12			10·37
17			10·45
20			10·33
22			10·39
Sept. 5			10·41
16			10·38
17			10·34
Oct. 17			10·48
Nov. 2			10·32
7			10·26
14			10·37

α Ophiuchi.	h.	m.	s.
Feb. 10	17	27	19·51
June 14			19·57
16			19·48
22			19·50
July 1			19·43
13			19·42
20			19·46
25			19·49
26			19·38
Aug. 1			19·33
4			19·35
5			19·31
8			19·34
10			19·47
11			19·49
12			19·38
13			19·45
16			19·78
18			19·47
19			19·44
20			19·42
22			19·58
24			19·54
26			19·64
Sept. 2			19·52
5			19·42
13			19·49
17			19·50
Oct. 17			19·49
20			19·37
31			19·30
Nov. 2			19·45
7			19·41
14			19·52
17			19·42
30			19·47
Dec. 1	17	27	19·44
9			19·40
10			19·54
15			19·52

ι Herculis.			
Aug. 13	17	34	50·30
18			50·33
19			50·34
20			50·22
22			50·28
23			50·51
24			50·35
26			50·38
27			50·34
29			50·49
Sept. 2			50·48
5			50·28

ι Herculis S. P.			
Jan. 14	5	34	50·23
27			50·20
28			49·75
Feb. 1			50·22
12			49·99
16			50·18
17			50·09
20			50·34
22			50·42
Mar. 9			50·20

γ Draconis.			
Mar. 10	17	52	47·86
July 1			47·95
25			48·29
26			47·98
30			47·95
Aug. 1			48·00
4			48·10
5			47·97
8			48·09
10			47·96
12			48·08
13			47·81
17			47·84
18			47·96

μ^1 Sagittarii.			
June 28	18	3	57·63
Aug. 22			57·30

16 Sagittarii.			
	h.	m.	s.
July 20	18	5	27·36

λ Sagittarii.			
Aug. 22	18	17	50·60

δ Ursæ Minoris.			
Jan. 7	18	25	11·88
8			11·95
15			10·54
18			12·11
26			10·72
Feb. 5			12·78
10			12·40
11			13·04
Mar. 10			12·81
June 28			14·17
29			14·01
July 1			12·60
13			13·13
18			12·31
20			12·44
25			12·87
Aug. 1			12·01
4			13·61
8			12·34
9			13·46
10			12·59
11			13·54
12			13·73
13			11·62
16			11·72
17			10·63
18			11·37
19			12·04
20			11·10
22			11·36
23			13·03
24			13·59
27			13·75
29			13·97
Sept. 2			12·70
5			13·54
6			12·51
13			14·29
15			14·10
16			13·97
17			13·87
19			14·14
20			13·56
29			12·69
30			12·58
	h.	m.	s.
Oct. 4	18	25	14·29
6			13·74
12			14·32
14			13·86
16			13·38
19			13·46
20			12·74
24			12·91
25			12·80
27			13·55
29			13·66
Nov. 2			13·86
3			13·08
7			13·15
8			13·42
14			13·55
15			11·73
17			11·93
30			12·70
Dec. 1			12·67
3			12·02
10			11·92
13			12·12
14			12·27
16			12·22

δ Ursæ Minoris S. P.			
Jan. 8	6	25	12·11
9			10·49
11			10·32
12			12·88
13			11·13
14			11·22
15			10·65
16			10·37
Feb. 1			10·12
2			10·40
6			11·72
9			11·63
12			8·69
17			16·54
20			11·96
22			12·47
23			12·59
29			11·13
Mar. 2			11·00
3			12·65
9			12·06
14			12·33
15			12·27
16			11·94
17			11·89
22			13·61
	h.	m.	s.
Mar. 23	6	25	14·00
24			13·96
25			13·34
26			12·24
29			11·32
Dec. 23			11·69

α Lyræ.			
Jan. 18	18	31	23·13
26			23·11
Feb. 5			23·18
10			23·19
Mar. 10			23·09
June 29			23·11
July 1			23·02
13			23·13
18			23·18
20			23·11
25			23·05
26			23·18
Aug. 6			23·29
9			23·14
11			23·14
12			23·22
13			23·10
16			23·10
18			22·97
19			23·08
20			23·06
22			23·14
23			23·18
24			23·14
26			23·37
27			23·13
29			23·22
Sept. 2			23·03
5			22·95
13			23·21
15			23·12
16			23·25
17			23·07
19			23·09
20			23·38
21			23·40
29			23·19
30			23·34
Oct. 4			23·29
6			23·38
12			23·23
14			23·31
			23·31
19			23·38
20			23·18
	h.	m.	s.
Oct. 24	18	31	23·23
25			23·18
27			23·39
29			23·22
31			23·22
Nov. 2			23·20
3			23·18
4			23·26
7			23·28
8			23·35
15			23·36
17			23·14
Dec. 3			23·13
8			23·16
10			23·10
13			23·19
14			23·12
16			23·27
19			23·08
20			23·13
21			23·14
23			23·10
24			23·19

α Lyræ S. P.			
Dec. 23	6	31	23·15

σ Sagittarii.			
Sept 19	18	45	5·11

ζ Sagittarii.			
Sept. 19	18	52	9·67

τ Sagittarii.			
June 28	18	56	41·66

52 Sagittarii.			
June 28	19	26	43·55
Aug. 22			43·15
Oct. 16			43·35

γ Aquilæ.			
Feb. 8	19	38	28·03
Aug. 6			27·85

γ Aquilæ.	h.	m.	s.
Aug. 10	19	38	27·74
12			27·73
16			27·63
17			27·67
18			27·69
22			27·71
24			27·79
26			27·74
27			27·82
29			27·81
Sept. 1			27·80
2			27·80
13			27·73
15			27·80
19			27·81
20			27·65
24			27·90
30			27·81
Oct. 4			27·84
6			27·77
12			27·69
13			27·74
16			27·85
17			27·56
24			27·83
25			27·76
27			27·68
Nov. 13			27·74
30			27·72
Dec. 1			27·71
13			27·75
16			27·70

α Aquilæ.	h.	m.	s.
Jan. 9	19	42	46·81
15			46·92
18			46·96
21			46·86
26			46·83
Feb. 8			47·04
Aug. 1			46·82
6			46·90
9			46·81
10			46·82
12			46·79
16			46·73
17			46·81
22			46·68
24			46·84
26			46·65
27			46·76
29			46·92
Sept. 1			46·79
Sept. 2	19	42	46·94
5			46·84
13			46·83
15			46·86
19			46·85
20			46·53
24			46·80
30			46·91
Oct. 4			46·83
6			46·80
12			46·80
13			46·79
16			46·81
17			46·77
24			46·77
25			46·78
27			46·82
Nov. 13			46·76
30			46·81
Dec. 1			46·92
8			46·75
9			46·81
10			46·74
13			46·83
16			46·82
20			46·90

59 Sagittarii.	h.	m.	s.
Sept. 19	19	46	52·21
20			52·14

β Aquilæ.	h.	m.	s.
Aug. 1	19	47	15·54
6			15·54
9			15·36
16			15·36
24			15·36
26			15·31
27			15·32
29			15·44
Sept. 1			15·49
13			15·38
15			15·56
21			15·34
24			15·43
29			15·48
30			15·32
Oct. 4			15·35
6			15·41
10			15·43
12			15·39
Oct. 13	19	47	15·43
16			15·37
17			15·39
24			15·48
25			15·46
27			15·32
Nov. 30			15·40
Dec. 1			15·40
16			15·40

62 Sagittarii.	h.	m.	s.
Oct. 16	19	52	33·84

α^2 Capricorni.	h.	m.	s.
Aug. 29	20	8	56·95
Sept. 1			56·98
15			56·98
17			56·92
19			57·00
20			57·08
30			56·94
Oct. 6			56·96
10			56·76
13			57·20
16			56·98
Nov. 13			56·90

σ Capricorni.	h.	m.	s.
Aug. 24	20	9	55·17

λ Ursæ Minoris.	h.	m.	s.
Aug. 6	20	24	56·50
8			57·27
9			56·63
11			57·76
12			57·84
18			51·49
22			50·60
27			57·08
29			58·91
Sept. 5			59·94
13			60·01
15			57·22

λ Ursæ Minoris S. P.	h.	m.	s.
Feb. 13	8	24	52·63
Mar. 19			59·30

α Cygni.	h.	m.	s.
Jan. 9	20	35	50·59
16			50·47
19			50·48
22			50·50
28			50·30
31			50·46
Feb. 5			50·29
May 6			50·49
July 30			50·61
Aug. 19			50·50
Sept. 17			50·63
19			50·66
21			50·78
28			50·55
Oct. 8			50·10
10			50·25
12			50·70
13			50·54
14			50·61
Dec. 3			50·33
8			50·48
16			50·64
24			50·50

ψ Capricorni.	h.	m.	s.
Aug. 24	20	36	22·04

η Capricorni.	h.	m.	s.
Sept. 21	20	55	3·18

α Cephei.	h.	m.	s.
Sept. 24	21	14	40·20
28			39·70
30			39·80
Oct. 8			39·32
10			39·97
12			40·22
13			39·16
14			39·89
19			39·67
21			39·83

ζ Capricorni.	h.	m.	s.
Aug. 24	21	17	17·48
Sept. 21			17·11
Nov. 14			17·15

β Cephei.

	h.	m.	s.
Sept. 24	21	26	31·45
30			30·95
Oct. 8			30·06
10			31·42
12			31·75
13			31·22
14			31·25
19			31·13
21			31·05
24			30·77

ε Capricorni.

Nov. 14	21	27	52·94

γ Capricorni.

Aug. 24	21	30	59·57
Oct. 19			59·49

δ Capricorni.

Oct. 19	21	37	58·56

α Aquarii.

May 7	21	57	21·49
Sept. 6			21·53
24			21·55
Oct. 5			21·49
10			21·76
11			21·66
19			21·53
21			21·50
24			21·49
Nov. 3			21·45
8			21·23
14			21·42
Dec. 8			21·59
9			21·43
10			21·63
14			21·61
24			21·56

θ Aquarii.

	h.	m.	s.
Sept. 21	22	8	10·09

τ² Aquarii.

Oct. 19	22	40	53·86

δ Aquarii.

Oct. 19	22	45	55·91
Dec. 13			56·35
14			56·35

α Piscis Australis.

Nov. 2	22	48	34·22
3			34·54
7			34·22
8			34·29
10			34·29
14			34·40
21			34·35
30			34·44
Dec. 10			34·59

α Pegasi.

Feb. 6	22	56	35·71
9			35·82
11			35·81
May 7			35·70
9			35·77
18			35·61
Sept. 1			35·82
6			35·71
21			35·46
28			35·76
Oct. 19			35·25
21			35·87
27			35·86
Nov. 1			35·73
3			35·82
4			35·78

α Pegasi.

	h.	m.	s.
Nov. 5	22	56	35·78
8			35·82
10			35·78
14			35·73
18			35·74
21			35·65
29			35·68
Dec. 1			35·77
7			35·93
10			35·72
14			35·64

φ Aquarii.

Aug. 27	23	5	49·42

ψ³ Aquarii.

Aug. 27	23	10	25·18
Dec. 14			25·76

27 Piscium.

Sept. 24	23	50	16·21

29 Piscium.

Dec. 15	23	53	25·13

30 Piscium.

Nov. 18	23	53	32·59

33 Piscium.

Sept. 24	23	56	56·09

α Andromedæ.

	h.	m.	s.
Jan. 7	23	59	55·35
9			55·39
11			55·27
12			55·36
13			55·43
15			55·29
22			55·36
24			55·46
26			55·37
Feb. 1			55·43
4			55·31
10			55·42
11			55·32
12			55·41
16			55·38
29			55·38
Mar. 3			55·46
May 7			55·48
9			55·49
18			55·35
Oct. 8			55·21
11			55·21
15			55·43
18			55·45
21			55·31
Nov. 3			55·47
4			55·42
5			55·43
8			55·48
10			55·36
14			55·52
15			55·35
18			55·44
20			55·45
21			55·50
28			55·39
30			55·38
Dec. 3			55·52
9			55·36
14			55·54
15			55·33
19			55·55

OBSERVATIONS

MADE WITH

THE MURAL CIRCLE,

IN THE YEAR 1836.

Date.	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		"	"	"	"	"	"	° ' "	"	°	In.	°	' "	° ' "
Jan. 3	(*a*) Moon North L.	59·0	67·9	55·7	63·1	65·0	57·1	119 51 1·5	− 0·3	48·0	29·56	44·5	+0 33·0	+26 14 10·4
Jan. 7	✱ R. A. $6^h\ 32^m\ 6^s$	35·9	42·0	29·2	39·2	43·8	34·8	144 58 37·4	………	39·0	29·42	42·5	+1 23·1	+ 1 5 44·1
	Jupiter South L.	24·9	29·0	18·0	27·2	29·0	25·0	122 56 25·6	………	38·9	……	……	+0 37·8	+23 8 41·2
Jan. 9	Sun South L.	39·3	45·1	32·2	43·3	43·2	38·8	168 29 40·3	………	36·8	29·66	40·0	+4 41·5	−22 28 37·2
	α Aquilæ	20·5	27·5	13·8	23·2	27·4	19·4	137 38 21·9	………	36·8	……	……	+1 4·8	+ 8 26 17·9
	α Cygni	41·6	48·7	37·2	47·0	51·3	41·1	101 23 44·4	………	36·7	29·65	39·9	+0 11·8	+44 41 48·4
	(*b*) ✱ R. A. $6^h\ 20^m\ 53^s$	52·8	61·9	….	….	….	……	113 48 56·4	………	35·0	……	……	+0 26·1	+32 16 22·1
	(*c*) δ Ursæ Minor. S. P.	39·1	47·0	33·8	40·3	48·6	38·7	52 41 41·3	0·0	35·2	……	……	−0 45·6	+86 35 11·1
	Juno	42·4	48·4	36·2	46·7	49·8	41·4	144 45 44·2	………	35·3	……	……	+1 23·6	+ 1 18 36·8
	α Canis Majoris	24·2	30·6	15·8	26·0	28·5	25·0	162 32 25·1	………	35·4	29·58	38·2	+3 5·4	−16 29 45·9
Jan. 11	(*d*) Juno	14·8	22·0	6·8	18·6	21·1	15·0	144 31 16·4	+ 0·2	31·5	28·96	37·9	+1 21·8	+ 1 33 6·2
	Jupiter North L. *	44·8	50·3	38·9	47·0	50·8	44·3	122 52 46·1	………	31·0	……	……	+0 37·8	+23 12 20·7
	Moon South L.	67·1	74·3	59·0	71·5	73·0	67·8	155 54 8·7	− 1·0	28·5	28·98	33·0	+2 10·7	− 9 50 33·8
Jan. 12	Juno	37·9	45·3	32·0	42·8	47·4	37·5	144 23 40·4	………	32·0	29·19	35·5	+1 22·0	+ 1 40 42·2
	Jupiter South L.	49·9	54·9	43·6	52·8	56·0	49·0	122 52 50·9	………	31·6	……	……	+0 38·0	+23 12 15·7
	α Bootis	47·7	51·5	41·3	50·2	54·4	46·1	126 2 48·4	………	34·8	29·17	36·4	+0 42·5	+20 2 13·7
Jan. 14	(*d*) β Tauri *	26·7	31·2	20·9	29·0	34·2	26·8	117 37 28·0	+ 0·5	35·5	28·85	39·3	+0 30·2	+28 27 45·9
	α Orionis	25·3	30·4	18·2	27·1	32·1	24·3	138 42 26·3	………	35·0	28·85	37·8	+1 5·7	+ 7 22 12·6
	(*e*) δ Ursæ Minor. S. P.	40·6	48·7	35·8	42·3	50·6	39·4	52 41 43·0	− 4·0	35·0	……	……	−0 44·5	+86 35 9·9
	Juno *	53·8	62·0	48·7	57·3	62·1	51·8	144 7 56·1	………	35·0	……	……	+1 19·8	+ 1 56 28·7
	Jupiter North L.	45·6	51·3	40·9	48·3	51·7	44·8	122 50 47·1	………	34·6	28·88	36·9	+0 37·4	+23 14 20·1
	(*f*) ✱ R. A. $6^h\ 47^m\ 32^s$	34·6	39·7	28·5	38·0	42·7	33·4	106 20 36·2	+ 0·4	34·3	……	……	+0 16·9	+39 44 51·1
Jan. 15	α Pegasi	29·0	33·8	22·6	32·1	35·0	30·6	131 45 30·5	………	36·5	29·05	37·0	+0 51·7	+14 19 22·4
	α Andromedæ	65·3	72·9	58·0	69·0	72·3	63·9	117 54 6·9	………	36·7	29·14	37·4	+0 30·8	+28 11 6·9
	α Aurigæ	60·9	69·1	56·7	64·2	69·3	59·4	100 16 3·3	………	36·5	29·41	37·6	+0 10·5	+45 49 30·8
	✱ R. A. $5^h\ 41^m\ 22^s$	23·8	27·0	17·0	24·8	29·3	21·8	109 50 24·0	………	36·4	……	……	+0 21·2	+36 14 59·4
	(*g*) ✱ R. A. $5^h\ 48^m\ 31^s$	34·8	40·6	30·1	36·9	41·5	34·8	121 18 36·4	+ 0·7	36·2	……	……	+0 35·8	+24 46 31·7
	(*h*) δ Ursæ Minor. S. P.	43·0	51·6	37·8	45·0	52·3	41·0	52 41 45·2	− 6·0	36·1	29·49	37·5	−0 45·3	+86 35 9·3
	(*d*) Jupiter South L.	49·8	56·3	44·5	52·5	55·2	48·7	122 50 51·2	+ 0·4	36·0	……	……	+0 38·0	+23 14 15·0
	α Aquilæ	21·5	27·7	13·9	22·9	28·0	20·4	137 38 22·3	………	33·9	……	……	+1 5·5	+ 8 26 16·8
Jan. 16	(*i*) Sun North L.	16·2	23·8	8·0	19·0	20·6	16·2	166 49 17·3	+ 0·1	33·8	29·79	35·1	+4 9·3	−20 47 42·1
	(*k*) α Cygni	44·1	51·0	38·9	47·2	52·4	43·0	101 23 46·0	+ 0·4	34·2	29·78	35·3	+0 12·0	+44 41 46·2
	Venus Centre	32·3	39·6	24·2	34·1	36·3	32·5	162 13 33·1	………	34·2	29·77	35·3	+3 3·7	−16 10 52·2
	(*l*) α Orionis *	24·8	29·9	16·3	25·2	30·8	25·2	138 42 25·3	+ 0·1	36·0	29·71	36·8	+1 7·5	+ 7 22 11·7
	Juno	18·8	25·9	12·6	22·8	24·6	20·0	143 51 20·8	………	36·8	……	……	+1 21·0	+ 2 13 2·8
	(*m*) δ Ursæ Minor. S. P.	42·4	51·6	37·8	45·0	52·5	42·2	52 41 45·3	− 6·6	36·8	……	……	−0 45·6	+86 35 8·5
	(*i*) Jupiter North L.	27·8	32·9	21·1	29·0	33·8	28·2	122 49 28·8	+ 0·1	37·0	……	……	+0 38·2	+23 15 37·5
	✱ R. A. $6^h\ 47^m\ 32^s$	33·9	40·0	28·6	37·2	41·5	34·4	106 20 36·0	………	37·0	29·70	37·6	+0 17·3	+39 44 51·3
Jan. 22	Venus Centre	46·2	54·3	40·5	50·8	50·7	44·0	159 41 47·8	………	43·6	29·00	43·5	+2 32·4	−13 38 35·6
	Moon South L.	20·5	29·5	17·6	26·6	28·8	21·2	151 58 24·0	+1 ·0	42·3	……	……	+1 46·9	− 5 54 27·3
	γ Pegasi	39·0	44·0	33·7	42·8	44·9	37·7	131 48 40·3	………	42·0	29·01	42·8	+0 51·2	+14 16 13·1
	α Tauri	28·2	35·9	24·0	32·1	37·0	29·2	129 54 31·0	………	40·3	28·95	42·0	+0 47·9	+16 10 25·7
Jan. 24	Moon South L.	23·0	30·0	17·8	25·0	30·9	21·1	140 16 24·7	+ 0·9	41·6	29·72	42·4	+1 10·5	+ 5 48 8·5
Jan. 27	Moon South L.	6·9	13·2	2·0	9·3	15·1	3·9	126 7 8·5	+ 0·6	42·2	28·85	42·0	+0 41·5	+19 57 54·0
	ε Tauri	16·4	23·2	12·8	19·7	25·6	16·5	127 16 17·4	………	42·1	……	……	+0 43·3	+18 48 43·9
	α Tauri	28·4	34·8	23·2	30·9	37·1	28·5	129 54 30·5	………	42·2	28·85	42·2	+0 47·5	+16 10 26·6

(*a*) At $6^h\ 56^m\ 53^s$.
(*b*) 1″·0 subtracted from mean of two Microscopes.
(*c*) At $6^h\ 24^m\ 11^s$.
(*d*) At Wire V.
(*e*) At $6^h\ 18^m\ 49^s$.
(*f*) Betwixt Wires IV. and V.
(*g*) At $5^h\ 49^m\ 18^s$.
(*h*) At $6^h\ 17^m\ 31^s$.
(*i*) At Wire IV.
(*k*) 40^s after transit.
(*l*) 35^s after transit.
(*m*) At $6^h\ 32^m\ 12^s$.

Date.	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
Jan. 28	(*a*) Moon South L.	48·0	55·1	43·0	50·2	55·4	47·0	122 59 49·8	+2·1	33·6	28·75	38·5	+0 37·5	+23 5 15·2
	(*b*) 109 Tauri	49·1	56·7	45·2	52·5	57·2	47·7	124 9 51·4	+0·4	33·9	......	......	+0 39·2	+21 55 13·6
	(*c*) β Tauri	25·8	31·0	19·3	28·4	34·2	25·3	117 37 27·4	+0·5	34·0	28·77	38·6	+0 30·2	+28 27 46·5
	α Orionis	25·3	31·0	18·0	26·3	33·1	24·1	138 42 26·4	....	34·0	28·77	38·6	+1 5·6	+ 7 22 12·6
Jan. 30	(*d*) Sun South L.	46·0	52·3	40·6	49·5	51·5	44·7	164 8 47·4	+0·2	35·3	28·84	36·8	+3 19·8	−18 6 22·8
	(*e*) Mercury Centre	18·3	26·2	10·3	20·8	25·0	18·4	159 52 19·9	+0·4	36·5	28·89	37·0	+2 35·7	−13 49 11·4
Jan. 31	Sun North L.	65·3	71·3	57·3	66·5	69·4	62·2	163 20 5·3	....	39·8	28·54	38·8	+3 6·0	−17 17 26·7
	Venus Centre	26·0	32·3	19·4	28·8	31·8	27·1	155 30 27·6	....	38·5	28·53	38·7	+2 3·6	− 9 26 46·6
	(*f*) α Ursæ Minoris	56·8	64·7	52·5	57·5	66·9	53·9	57 39 58·7	+0·6	35·5	28·50	38·5	−0 36·4	+88 26 21·7
Feb. 1	α Andromedæ	8·2	15·7	2·8	12·6	16·8	6·5	117 54 10·4	....	36·6	28·40	37·8	+0 30·0	+28 11 4·2
	Moon North L.	23·2	29·0	16·3	24·0	28·8	23·2	122 21 24·1	−0·4	33·8	28·40	35·4	+0 36·1	+23 43 44·8
Feb. 2	Moon North L.	13·3	20·0	8·2	15·2	21·4	11·8	125 39 15·0	−0·6	35·0	28·82	36·7	+0 41·4	+20 25 48·8
Feb. 4	(*g*) α Ursæ Minoris	60·2	68·7	55·7	62·0	70·0	57·0	57 40 2·3	+1·1	39·8	29·99	39·7	−0 38·0	+88 26 19·2
Feb. 5	α Geminor. following	46·8	53·2	42·0	48·9	55·1	43·4	113 50 47·3	....	43·5	29·40	40·5	+0 25·5	+32 14 31·8
	β Geminorum	11·5	19·1	6·6	16·3	19·5	11·0	117 40 14·0	....	43·9	......	......	+0 30·3	+28 25 0·3
	α Cygni	50·8	58·8	47·7	54·4	59·5	47·8	101 23 53·1	....	41·0	29·44	40·7	+0 11·6	+44 41 39·9
Feb. 6	Sun South L.	48·3	56·9	44·0	52·5	54·6	46·3	162 7 50·4	....	41·3	29·44	41·0	+2 57·9	−16 5 3·7
	Mercury Centre	52·7	62·2	49·2	57·9	59·2	52·1	155 9 55·5	....	41·5	29·42	41·5	+2 4·7	− 9 6 15·6
	α Pegasi	31·7	38·4	28·8	35·5	38·9	32·2	131 45 34·3	....	41·2	29·42	41·3	+0 51·8	+14 19 18·5
	Venus Centre	21·9	29·4	18·0	25·9	27·7	23·1	152 31 24·4	....	41·1	29·43	41·5	+1 51·3	− 6 27 31·1
	α Canis Majoris .... *	30·2	37·5	23·7	32·9	35·0	30·4	162 32 31·7	....	37·7	29·37	39·4	+3 3·3	−16 26 50·4
	* R. A. $7^h 16^m 52^s$	14·8	20·7	9·5	16·2	22·9	13·7	128 56 16·3	....	37·8	29·36	39·6	+0 47·2	+17 8 41·1
Feb. 7	Sun North L.	59·8	68·1	53·5	62·4	65·0	57·7	161 17 1·2	....	37·3	29·50	38·8	+2 51·3	−15 14 7·9
Feb. 9	Venus Centre	27·9	33·9	21·9	31·2	34·6	27·6	150 59 29·5	....	41·4	29·25	41·5	+1 43·7	− 4 55 28·6
	(*h*) α Ursæ Minoris	60·4	69·0	56·2	61·1	70·0	56·1	57 40 2·1	....	38·5	29·27	41·0	−0 37·2	+88 26 19·7
	Juno	37·4	44·7	32·8	39·2	46·5	35·1	139 58 39·2	....	36·0	......	......	+1 9·7	+ 6 5 55·7
	(*i*) Piazzi VI. 142.	55·8	63·5	....	....	....	......	114 31 58·0	....	36·0	......	......	+0 26·7	+31 33 19·9
	Jupiter South L.	57·0	63·8	52·8	58·8	64·9	53·6	122 38 58·4	....	36·0	29·34	39·4	+0 37·5	+23 26 8·7
	α Canis Majoris	30·9	37·6	23·9	33·1	37·2	30·2	162 32 32·1	....	36·2	......	......	+3 3·7	−16 29 51·2
	* R. A. $6^h 44^m 33^s$	10·2	17·0	6·6	12·9	20·0	9·3	106 20 12·7	....	36·4	29·36	39·2	+0 17·1	+39 45 14·8
Feb. 10	(*h*) α Ursæ Minoris	61·3	70·0	56·2	61·0	71·2	58·0	57 40 3·0	....	36·0	29·21	37·8	−0 37·3	+88 26 18·9
	β Tauri	25·9	31·8	19·8	27·2	34·0	25·0	117 37 27·4	....	34·0	29·08	36·5	+0 30·5	+28 27 46·7
Feb. 11	Venus Centre	28·8	34·9	20·3	30·9	34·0	30·2	149 57 29·9	....	33·5	29·76	34·8	+1 43·0	− 3 53 28·3
	α Andromedæ	9·3	15·0	1·2	12·9	15·2	7·3	117 54 10·1	....	33·3	......	......	+0 31·7	+28 11 2·8
	(*h*) α Ursæ Minoris	62·3	70·6	54·8	62·3	71·2	59·0	57 40 3·4	....	33·0	29·77	34·4	−0 38·3	+88 26 19·5
	Jupiter North L.	40·0	45·7	34·1	42·7	48·0	39·2	122 37 41·5	....	35·1	29·65	36·3	+0 38·0	+23 27 25·1
Feb. 12	Venus Centre	22·0	29·6	17·3	24·8	27·2	22·0	149 26 23·9	....	39·6	29·72	40·3	+1 39·4	− 3 22 18·7
	α Andromedæ	9·7	17·5	4·7	12·9	15·9	7·8	117 54 11·4	....	39·5	......	......	+0 31·2	+28 11 2·0
	(*h*) α Ursæ Minoris	60·8	71·6	58·2	63·0	71·0	58·9	57 40 3·9	....	38·9	29·76	39·8	−0 37·8	+88 26 18·5
Feb. 13	(*k*) λ Ursæ Minor. S. P.	11·8	20·9	6·8	12·7	21·6	8·0	54 55 13·6	−1·4	43·8	29·84	42·8	−0 41·6	+88 48 46·0
Feb. 16	(*l*) α Ursæ Minoris	51·1	60·1	48·2	52·8	61·4	46·5	57 39 53·3	+9·1	46·4	29·29	44·8	−0 36·6	+88 26 18·8
	α Arietis	3·9	9·6	1·5	4·2	1·15	0·0	123 24 5·1	....	45·3	29·28	44·7	+0 37·8	+22 41 1·7

(*a*) At $4^h 46^m 6^s$; faint.
(*b*) At $5^h 9^m 59^s$.
(*c*) At Wire V.
(*d*) Betwixt Wires IV. and V.

(*e*) Betwixt Wires III. and IV.
(*f*) At $1^h 3^m 44^s$.
(*g*) At $1^h 4^m 55^s$.
(*h*) On Meridian.

(*i*) 1″·6 subtracted from mean of two Microscopes.
(*k*) At $8^h 29^m 28^s$.
(*l*) At $1^h 13^m 5^s$.

Date.	OBJECT OBSERVED.	Microscope. I.	II.	III.	IV.	V.	VI.	Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
Feb. 17	α Arietis	63·2	69·2	59·3	63·8	70·2	59·8	123 24 4·2	....	39·9	29·79	40·4	+0 38·9	+22 41 1·5
	(a) Piazzi VI. 126.	21·2	....	....	20·8	29·7	......	113 31 22·4	....	38·0	......	......	+0 25·9	+32 33 56·3
	Jupiter South L.	50·5	57·7	46·0	52·1	58·0	47·5	122 36 52·0	....	38·0	......	......	+0 38·1	+23 28 14·5
	(b) δ Ursæ Minor. S.P.	37·5	44·0	31·8	36·9	46·1	34·4	52 41 38·5	−8·2	38·0	......	......	−0 45·8	+86 34 59·9
	∗ R.A. $6^h 47^m 32^s$	31·2	37·5	27·6	33·3	41·4	30·1	106 20 33·5	....	37·5	29·94	39·9	+0 17·4	+39 44 53·7
Feb. 20	Sun South L.	18·2	25·0	11·2	20·2	24·3	18·0	157 28 19·4	....	39·9	30·08	39·9	+2 22·4	−11 24 57·2
	(c) Venus Centre	5·4	14·5	1·0	8·5	12·2	2·5	145 15 7·4	+1·2	41·7	30·06	41·5	+1 25·3	+ 0 49 10·7
	(d) α Ursæ Minoris	62·9	72·2	57·8	63·2	72·3	59·2	57 40 4·6	....	41·5	30·05	41·4	−0 37·9	+88 26 17·9
Feb. 22	Venus Centre	9·5	18·0	4·9	12·1	16·7	8·0	144 12 11·6	....	42·8	29·34	42·7	+1 19·9	+ 1 52 13·1
	(d) α Ursæ Minoris	61·4	70·7	56·9	63·0	71·1	58·8	57 40 3·7	....	43·0	29·33	42·8	−0 36·9	+88 26 17·8
	α Arietis	5·2	10·2	1·3	5·9	11·8	2·2	123 24 6·1	....	41·6	29·32	42·5	+0 38·1	+22 41 0·4
	(e) Moon South L.	9·1	15·1	5·0	11·0	16·2	6·2	131 49 10·4	−8·3	40·7	29·32	42·2	+0 51·8	+14 15 50·7
	(f) Juno	20·7	26·8	....	....	....	......	137 50 21·8	....	37·0	......	......	+1 4·5	+ 8 14 18·3
	(g) ∗ R.A. $6^h 22^m 55^s$	57·8	63·7	....	....	....	......	112 56 59·4	+1·4	......	......	......	+0 24·7	+33 8 19·1
	(h) Piazzi VI. 150.	1·3	6·6	....	....	....	......	114 29 2·8	+2·2	......	......	......	+0 26·6	+31 36 13·0
	(i) δ Ursæ Minor. S.P.	28·9	38·3	25·1	30·0	39·8	28·2	52 41 31·8	−4·3	......	......	......	−0 45·0	+86 34 57·9
	α Canis Majoris *	33·5	40·0	28·4	35·2	39·0	33·0	162 32 34·9	....	37·0	29·32	39·7	+3 3·2	+16 29 53·5
Feb. 23	(k) Venus Centre	43·8	51·3	39·8	46·2	51·5	41·2	143 40 45·7	−0·9	39·2	29·19	39·8	+1 18·6	+ 2 23 41·2
	(d) α Ursæ Minoris	62·7	71·6	56·8	62·5	72·7	59·8	57 40 4·4	....	38·9	29·18	39·5	−0 37·1	+88 26 17·3
	Moon South L.	52·8	60·5	50·0	54·8	62·0	51·4	127 23 55·2	+0·6	38·0	29·18	39·4	+0 44·4	+18 41 4·4
	(l) δ Ursæ Minor. S.P.	34·0	42·0	28·4	33·5	43·9	31·9	52 41 35·7	−5·4	37·0	......	......	−0 44·7	+86 35 1·0
	Jupiter North L.	61·8	68·1	57·0	62·8	68·5	59·0	122 35 2·9	....	37·0	29·17	39·5	+0 37·2	+23 30 4·5
Feb. 26	(m) Moon North L.	20·5	24·8	13·7	19·8	27·2	21·1	119 39 21·2	−0·3	29·0	28·86	32·0	+0 33·3	+26 25 50·4
Mar. 2	Jupiter South L.	44·2	48·8	39·4	45·7	51·1	42·1	122 34 45·2	....	37·9	......	......	+0 36·8	+23 30 22·4
	(n) δ Ursæ Minor. S.P.	27·4	36·1	23·3	28·5	37·6	27·2	52 41 30·1	−4·4	37·9	......	......	−0 44·3	+86 34 57·0
	(o) α Canis Majoris *	37·6	44·2	30·7	41·0	41·8	36·8	162 32 38·8	−0·1	37·9	......	......	+3 0·5	−16 29 54·8
	(p) ∗ R.A. $6^h 44^m 33^s$	10·2	15·3	4·9	12·2	19·0	8·3	106 20 11·7	+0·4	37·9	28·94	38·6	+0 16·8	+39 45 15·5
	(q) ∗ R.A. $7^h 14^m 23^s$	49·8	54·9	44·2	51·0	56·6	47·2	129 5 50·6	+0·1	37·6	......	......	+0 46·8	+16 59 6·9
	(p) α Geminor. following	45·5	50·5	39·6	47·1	53·2	43·2	113 50 46·6	+0·3	37·2	......	......	+0 25·5	+32 14 32·0
	α Canis Minoris	9·8	18·7	6·1	13·0	16·8	7·2	140 26 12·0	....	37·0	28·96	38·5	+1 9·8	+ 5 38 22·6
	ϱ Leonis	52·8	60·9	47·9	56·3	61·3	50·7	135 55 55·0	....	37·0	29·01	38·0	+0 59·7	+10 8 49·7
	Moon North L.	61·4	66·9	56·3	63·4	69·1	59·6	133 13 2·7	−0·9	36·9	......	......	+0 54·3	+12 51 48·3
	ι Leonis	57·2	64·2	50·7	59·0	64·7	53·8	134 38 58·2	....	37·2	29·01	38·3	+0 57·1	+11 25 49·1
Mar. 3	(r) α Ursæ Minoris	64·5	73·8	60·7	65·9	74·3	60·3	57 40 6·6	+0·4	43·4	......	......	−0 36·7	+88 26 14·1
	Venus Centre	16·9	24·0	12·9	19·0	23·2	15·2	139 1 18·6	....	43·2	29·16	42·0	+1 5·9	+ 7 3 19·9
	ι Leonis	56·1	63·7	50·4	58·3	64·5	53·2	134 38 57·7	....	39·8	29·18	40·5	+0 57·1	+11 25 49·6
	Moon North.L.	58·8	65·2	53·2	61·0	64·6	55·2	139 3 59·6	−1·0	40·0	......	......	+1 6·5	+ 7 0 39·3
	β Leonis	39·8	45·5	35·8	42·8	46·9	39·4	130 35 41·7	....	40·0	......	......	+0 49·5	+15 29 13·2
	ο Virginis	8·9	17·5	3·8	13·2	16·4	7·5	136 26 11·3	....	39·8	......	......	+1 0·7	+ 9 38 32·4
	(s) Vesta *	31·2	38·9	26·8	34·9	40·2	31·0	135 17 33·9	−0·1	39·7	29·19	40·5	+0 58·4	+10 47 12·2
Mar. 4	(d) α Ursæ Minoris	65·3	72·6	61·2	65·3	74·6	61·0	57 40 6·7	....	43·7	29·05	42·7	−0 36·5	+88 26 14·2
	Venus Centre	52·7	59·2	48·2	56·3	59·6	50·0	138 30 54·4	....	43·5	......	......	+1 4·5	+ 7 33 45·5
	α Ceti	61·6	68·7	57·6	64·8	69·0	60·2	142 38 3·6	....	42·5	28·94	42·4	+1 14·5	+ 3 26 26·3
	β Leonis	41·5	46·9	37·2	43·3	48·0	40·3	130 35 42·9	....	40·8	28·61	41·4	+0 48·5	+15 29 13·0
	ο Virginis	10·8	18·0	5·4	13·6	17·5	8·4	136 26 12·3	....	40·6	......	......	+0 59·5	+ 9 38 32·6
	Vesta	13·2	20·3	9·6	15·8	21·2	12·2	135 9 15·4	....	39·3	......	......	+0 57·0	+10 55 32·0
	Moon South L.	14·2	21·8	7·8	17·4	20·0	14·6	145 55 16·0	−1·0	39·3	28·63	40·9	+1 23·7	+ 0 9 5·7

(a) 1″·5 subtracted from mean of three Microscopes.
(b) At $6^h 33^m 0^s$.
(c) At $0^h 15^m 33^s$.
(d) On Meridian.
(e) At $2^h 44^m 36^s$.
(f) 2″·0 subtracted from mean of two Microscopes.
(g) At $6^h 23^m 40^s$; 1″·4 subtracted from mean of two Microscopes.
(h) At $6^h 26^m 28^s$; 1″·2 subtracted from mean of two Microscopes.
(i) At $6^h 30^m 38^s$.
(k) At $0^h 27^m 1^s$.
(l) At $6^h 17^m 46^s$.
(m) At $6^h 11^m 10^s$.
(n) At $6^h 30^m 35^s$.
(o) At $6^h 37^m 39^s$.
(p) Betwixt Wires IV. and V.
(q) At Wire IV.
(r) At $1^h 2^m 25^s$.
(s) Betwixt Wires I. and II.

Date	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
Mar. 5	Sun North L.	42·7	48·6	37·5	44·8	49·3	40·2	151 42 43·8	....	40·5	28·84	40·0	+1 45·6	− 5 38 45·0
Mar. 7	Venus Centre	36·4	43·3	31·6	38·5	44·3	35·2	137 0 38·2	....	44·3	28·91	42·5	+1 0·8	+ 9 4 5·4
Mar. 9	Venus Centre	22·8	30·3	18·6	26·0	30·5	22·5	136 1 25·2	....	41·1	28·99	40·8	+0 59·3	+10 3 19·9
	α Arietis	5·8	13·4	1·5	7·5	14·6	4·0	123 24 7·8	....	42·1	......	......	+0 37·7	+22 40 58·9
Mar. 11	(*a*) α Ursæ Minoris	64·5	72·8	59·3	64·7	75·0	61·2	57 40 6·3	+1·8	40·0	28·48	39·0	−0 36·1	+88 26 12·4
	Venus Centre	5·1	13·5	2·7	8·4	14·8	3·7	135 3 8·0	....	41·4	......	......	+0 56·3	+11 1 40·1
Mar. 14	(*b*) α Ursæ Minoris	5·8	14·2	1·6	5·8	16·2	1·6	57 40 7·5	+0·4	40·2	28·37	41·0	−0 35·9	+88 26 12·4
	Venus Centre *	32·6	37·7	27·6	33·2	40·4	31·5	133 37 33·9	....	40·7	28·38	41·5	+0 53·5	+12 27 17·0
	(*c*) δ Ursæ Minor. S.P.	24·9	34·2	21·0	26·9	35·9	25·1	52 41 28·0	−3·0	37·8	......	......	−0 43·7	+86 34 56·9
	Jupiter North L.	47·5	52·9	43·3	49·6	56·0	45·7	122 33 49·1	....	37·7	......	......	+0 36·2	+23 31 19·1
	α Canis Majoris	40·1	47·2	34·8	42·3	47·1	38·4	162 32 41·6	....	37·7	28·53	39·8	+2 58·0	−16 29 55·2
	β Leonis	41·1	47·1	36·5	43·1	49·2	40·0	130 35 42·9	....	36·0	28·64	39·0	+0 49·0	+15 29 12·5
	Vesta	51·9	58·9	47·2	53·0	61·0	49·0	133 47 53·4	....	36·0	28·63	38·9	+0 54·8	+12 16 56·2
Mar. 15	(*d*) α Ursæ Minoris	7·1	16·2	2·4	7·8	17·6	5·1	57 40 9·4	+0·1	41·6	28·72	41·0	−0 36·3	+88 26 11·2
	β Leonis	41·8	47·5	37·1	43·9	49·6	41·4	130 35 43·6	....	36·0	28·92	38·0	+0 49·5	+15 29 11·3
	Vesta	12·0	19·3	6·2	12·8	20·0	9·0	133 40 13·2	....	36·0	28·93	38·0	+0 55·1	+12 24 36·1
Mar. 17	(*e*) δ Ursæ Minor. S.P.	25·3	33·6	21·3	26·2	36·0	24·0	52 41 27·8	−3·1	44·0	......	......	−0 44·1	+86 34 56·2
	Jupiter South L.	34·0	38·6	29·8	34·8	40·6	32·5	122 34 35·0	....	44·0	29·18	42·5	+0 36·6	+23 30 32·8
	α Canis Majoris	38·3	44·4	33·6	40·8	44·7	37·0	162 32 39·7	....	44·0	......	......	+2 59·6	−16 29 54·9
Mar. 18	α Leonis	53·4	59·2	49·5	55·9	61·2	49·0	133 18 54·7	....	50·5	29·69	45·8	+0 54·2	+12 45 55·5
Mar. 19	Sun South L.	28·2	34·5	25·6	31·0	35·8	26·5	146 45 30·3	....	54·0	29·67	49·7	+1 26·7	− 0 41 12·6
	(*f*) α Ursæ Minoris	8·5	17·6	7·2	9·7	19·0	4·2	57 40 11·0	....	54·5	29·66	53·0	−0 36·4	+88 26 9·8
	Venus Centre	41·4	48·3	42·5	45·0	49·0	40·1	131 20 44·4	....	55·2	29·65	53·4	+0 50·0	+14 44 10·0
	β Geminorum	8·5	16·7	6·6	11·5	17·6	5·4	117 40 11·0	....	48·7	29·67	48·6	+0 30·2	+28 25 3·2
	(*f*) λ Ursæ Minor. S.P.	59·0	69·4	56·2	60·1	69·0	53·5	54 55 1·2	....	47·6	29·69	48·0	−0 41·0	+88 48 35·8
	α Hydræ	54·3	61·8	52·0	57·1	60·7	50·4	154 0 56·1	....	47·4	29·69	47·9	+1 58·0	− 7 57 9·7
	α Leonis	51·8	60·0	50·1	55·1	61·0	48·5	133 18 54·4	....	47·6	29·70	47·9	+0 54·5	+12 45 55·5
	Vesta	47·0	53·2	44·2	49·8	56·0	43·5	133 10 49·0	....	46·9	29·71	47·5	+0 54·4	+12 54 1·0
Mar. 22	Venus South L.	41·4	47·6	38·8	45·0	50·3	41·3	130 2 44·0	....	47·9	29·42	47·3	+0 48·1	+16 2 12·3
	(*g*) δ Ursæ Minor. S.P.	23·3	33·2	20·1	25·0	34·2	23·1	52 41 26·5	−2·0	43·1	......	......	−0 44·6	+86 34 55·5
	Jupiter North L.	24·3	31·1	20·9	24·5	32·7	24·3	122 34 26·3	....	42·9	......	......	+0 37·0	+23 30 41·1
	α Canis Majoris	34·4	42·2	30·7	36·2	42·5	33·2	162 32 36·4	....	42·2	29·45	45·0	+3 1·9	−16 29 53·9
Mar. 23	α Aurigæ	60·2	67·7	56·5	62·1	68·2	56·9	100 16 2·0	....	46·7	28·82	45·6	+0 10·1	+45 49 32·3
	(*h*) β Tauri	25·4	32·0	22·6	25·9	35·2	24·3	117 37 27·7	+0·1	46·6	......	......	+0 29·4	+28 27 47·2
	α Orionis	27·8	33·2	22·2	28·5	34·8	27·8	138 42 29·1	....	45·5	......	......	+1 4·1	+ 7 22 11·2
	(*i*) δ Ursæ Minor. S.P.	21·5	29·8	18·6	21·2	32·1	20·7	52 41 24·0	−1·8	44·8	......	......	−0 43·4	+86 34 54·4
	Jupiter South L.	10·3	16·6	6·0	11·2	18·7	7·0	122 35 11·6	....	44·8	28·78	45·7	+0 36·0	+23 29 56·8
	Vesta	7·2	12·9	2·5	8·0	14·6	4·0	132 44 8·2	....	42·1	28·71	44·2	+0 52·2	+13 20 44·0
Mar. 24	α Tauri	29·9	35·2	26·5	30·5	39·5	30·3	129 54 32·0	....	38·0	28·76	43·3	+0 47·8	+16 10 24·6
	(*k*) α Geminor. following	43·9	49·7	37·9	44·8	53·0	42·2	113 50 45·3	+0·2	35·0	......	......	+0 25·4	+32 14 33·5
	α Canis Minoris	11·7	18·8	5·8	13·4	18·5	10·0	140 26 13·1	....	35·0	28·76	41·0	+1 9·6	+ 5 38 21·7
	Vesta	52·9	60·7	48·8	55·3	62·9	50·7	132 37 55·1	....	36·0	28·68	40·6	+0 52·7	+13 26 56·6
Mar. 25	(*l*) δ Ursæ Minor. S.P.	22·0	31·2	17·4	22·2	33·7	21·8	52 41 24·8	−0·8	39·1	......	......	−0 43·4	+86 34 56·2
	Jupiter North L.	49·8	57·9	46·0	51·5	59·8	48·0	122 34 52·2	....	39·0	......	......	+0 36·0	+23 30 16·2
	α Canis Majoris	41·9	48·1	38·0	43·5	50·0	41·2	162 32 43·7	....	38·7	......	......	+2 56·8	−16 29 56·1

(*a*) At 1^{h} 5^{m} 11^{s}.
(*b*) At 1^{h} 2^{m} 6^{s}.
(*c*) At 6^{h} 19^{m} 16^{s}.
(*d*) At 1^{h} 0^{m} 36^{s}.

(*c*) At 6^{h} 19^{m} 12^{s}.
(*f*) On Meridian.
(*g*) At 6^{h} 20^{m} 12^{s}.
(*h*) At Wire IV.

(*i*) At 6^{h} 20^{m} 21^{s}.
(*k*) 30^{s} after transit.
(*l*) At 6^{h} 21^{m} 40^{s}.

Date.	OBJECT OBSERVED.	Microscope. I.	II.	III.	IV.	V.	VI.	Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
Mar. 25	Moon North L.	33·5	38·7	28·7	34·0	42·9	32·8	119 18 35·0	0·0	38·5	28·39	40·6	+0 31·6	+26 46 37·8
	ι Geminorum	64·9	72·2	59·1	67·1	74·0	62·8	117 58 6·6	....	38·0	......	......	+0 30·0	+28 7 7·8
	α Geminor. following	45·0	50·9	38·6	45·8	53·7	42·8	113 50 46·2	....	38·0	......	......	+0 24·9	+32 14 33·3
	α Canis Minoris	13·5	20·0	7·8	15·1	19·9	12·2	140 26 14·8	....	38·0	28·42	40·4	+1 8·3	+ 5 38 21·3
	(*a*) Mercury Centre	17·3	25·6	12·0	19·8	25·0	17·8	156 4 19·6	....	42·5	28·64	41·9	+2 6·2	−10 0 41·4
Mar. 26	(*b*) Sun South L.	11·8	18·6	7·0	14·9	19·6	11·0	144 0 13·8	+0·4	43·0	28·67	42·9	+1 17·5	+ 2 4 12·7
	Jupiter South L.	33·3	39·8	30·1	34·2	40·2	33·5	122 35 35·2	....	38·9	......	......	+0 36·6	+23 29 32·6
	α Canis Majoris .... *	39·2	46·8	34·2	40·7	45·0	38·0	162 32 40·7	....	38·5	28·84	40·6	+2 59·6	−16 29 55·9
	ι Geminorum	64·0	71·6	59·1	66·2	73·0	62·0	117 58 5·9	....	37·5	......	......	+0 30·5	+28 7 8·0
	α Geminor. following	44·2	49·0	38·2	44·8	52·1	42·0	113 50 45·1	....	37·2	......	......	+0 25·4	+32 14 33·9
	α Canis Minoris	13·8	20·0	7·5	14·2	18·9	12·0	140 26 14·4	....	37·2	......	......	+1 9·6	+ 5 38 20·4
	Moon North L.	53·0	60·0	47·4	54·5	60·5	50·2	120 12 54·2	−0·3	37·0	28·88	39·4	+0 33·5	+25 52 17·0
	(*c*) λ Ursæ Minor. S.P.	60·8	70·0	54·9	58·8	71·0	57·1	54 55 2·1	....	36·0	28·89	39·3	−0 40·9	+88 48 36·8
	Vesta	11·2	16·6	4·9	11·9	18·4	9·9	132 26 12·2	....	33·6	28·95	37·1	+0 53·1	+13 38 39·1
Mar. 27	Sun South L.	40·1	47·0	36·2	42·2	48·0	38·8	143 36 42·1	....	41·6	28·92	40·7	+1 17·3	+ 2 27 45·0
	(*d*) α Ursæ Minoris	10·1	18·9	5·0	9·5	20·8	7·2	57 40 11·9	+1·0	43·5	28·89	41·3	−0 36·3	+88 26 7·8
	(*c*) ∗ R. A. $7^h\ 14^m\ 23^s$	49·1	54·5	.....	....	....	......	129 5 50·4	....	36·0	......	......	+0 46·7	+16 59 7·3
	∗ R. A. $7^h\ 16^m\ 52^s$	16·9	21·3	10·0	16·0	24·6	17·0	128 56 17·7	....	36·0	......	......	+0 46·5	+17 8 40·2
	α Geminor. following	43·6	47·8	37·0	43·0	51·0	42·2	113 50 44·1	....	36·0	......	......	+0 25·4	+32 14 34·9
	α Canis Minoris	10·4	18·0	5·4	11·9	18·1	9·2	140 26 12·2	....	36·0	28·81	38·3	+1 9·6	+ 5 38 22·6
	(*f*) λ Cancri	64·0	70·8	57·3	65·0	71·9	63·0	121 33 5·3	+0·4	35·1	......	......	+0 35·4	+24 32 3·3
	(*g*) λ Ursæ Minor. S.P.	61·1	69·4	55·5	60·0	71·3	57·9	54 55 2·5	−0·1	35·1	......	......	−0 40·9	+88 48 37·1
	Moon North L.	45·2	51·0	39·6	45·4	53·0	42·5	122 28 46·1	−0·5	35·0	28·81	37·8	+0 36·7	+23 36 22·1
Mar. 29	Venus South L.	10·4	17·7	6·8	11·6	19·2	11·1	127 14 12·8	....	37·2	......	......	+0 43 8	+18 50 47·8
	α Persei	12·9	20·6	8·5	13·4	22·6	11·8	96 49 15·0	....	37·6	28·96	40·0	+0 6·8	+49 16 22·6
	(*h*) δ Ursæ Minor. S.P.	23·2	32·8	18·5	23·1	34·4	22·7	52 41 25·8	−1·4	36·5	......	......	−0 44·6	+86 34 55·4
	Jupiter North L.	34·2	39·7	29·3	35·0	42·0	34·4	122 35 35·8	....	36·2	......	......	+0 37·0	+23 29 31·6
	α Canis Majoris .... *	36·0	43·1	30·4	38·2	42·2	36·4	162 32 37·8	....	36·0	29·02	39·0	+3 1·7	−16 29 55·1
	Moon North L.	65·1	70·8	59·0	64·6	71·1	64·0	130 41 5·8	−0·8	36·7	29·02	38·6	+0 49·8	+15 23 49·6
	χ Leonis	27·3	33·7	21·5	27·1	34·8	27·0	137 51 28·6	....	36·5	......	......	+1 4·0	+ 8 13 11·8
	Vesta	14·4	20·0	7·4	15·4	21·2	13·0	132 10 15·2	....	37·0	29·05	38·7	+0 52·4	+13 54 36·8
Mar. 30	χ Leonis	28·1	34·1	22·7	28·2	35·6	27·3	137 51 29·4	....	38·6	28·77	39·9	+1 3·1	+ 8 13 11·9
	Moon North L.	13·3	20·1	7·5	15·7	21·4	12·0	136 16 15·0	−1·0	38·8	......	......	+0 59·6	+ 9 48 30·8
	ν Virginis .... *	50·9	57·5	46·0	51·6	58·3	48·0	138 37 52·1	....	38·1	......	......	+1 4·9	+ 7 26 47·4
	γ Ursæ Majoris	17·2	23·6	11·5	17·8	26·5	16·2	91 29 18·8	....	......	......	......	+0 1·4	+54 36 24·2
	7 Virginis	30·8	37·2	26·4	32·1	39·7	31·3	141 30 32·9	....	38·0	28·77	39·5	+1 11·9	+ 4 33 59·6
Mar. 31	(*c*) λ Ursæ Minor. S.P.	58·9	68·6	53·3	58·5	68·6	55·3	54 55 0·5	....	38·5	29·02	39·6	−0 40·9	+88 48 35·2
April 1	(*i*) Sun North L.	20·2	26·0	14·9	21·5	28·4	19·5	141 8 21·7	+0·9	42·7	29·21	42·2	+1 11·3	+ 4 56 10·3
	(*c*) α Ursæ Minoris	12·8	21·3	8·3	13·0	22·9	10·8	57 40 14·9	....	43·0	......	......	−0 36·7	+88 26 6·0
	α Ursæ Majoris	38·0	44·7	31·8	39·0	48·7	35·3	83 27 39·5	....	35·0	29·07	39·7	−0 6·8	+62 38 11·5
	β Leonis	38·6	45·8	34·4	39·8	47·7	38·1	130 35 40·7	....	34·7	29·06	36·8	+0 49·9	+15 29 13·6
	(*k*) Vesta	22·5	29·5	17·6	23·9	31·6	22·6	131 56 24·6	+0·2	34·4	......	......	+0 52·3	+14 8 27·1
	(*c*) α Ursæ Minor. S. P. *	30·5	39·6	25·0	30·8	42·2	30·8	54 32 33·2	....	34·0	29·05	35·6	−0 42·5	+88 26 6·5
April 2	(*c*) α Ursæ Minor. S. P.	29·5	38·2	24·6	28·1	41·7	28·8	54 32 31·9	....	37·1	29·44	38·4	−0 42·2	+88 26 5·5
	α Virginis	50·3	57·9	44·6	53·8	57·6	48·5	156 21 52·2	....	37·0	......	......	+2 13·2	−10 18 21·2
	η Ursæ Majoris ...... *	43·2	51·0	38·0	44·8	52·8	41·7	95 57 45·3	....	37·7	......	......	+0 6·0	+50 7 52·9
	Moon South L.	30·8	36·6	23·4	33·1	38·0	30·2	156 16 32·1	−1·0	37·7	29·46	38·6	+2 12·5	−10 12 59·4
April 4	(*l*) α Aurigæ	59·9	68·5	57·2	62·0	67·5	57·2	100 16 2·1	+0·1	44·1	29·97	42·0	+0 10·6	+45 49 31·4

(*a*) Faint.
(*b*) At Wire IV; ill defined.
(*c*) On Meridian.
(*d*) At $1^h\ 3^m\ 27^s$.

(*c*) 1″·4 subtracted from mean of two Microscopes.
(*f*) At Wire V.
(*g*) At $8^h\ 21^m\ 37^s$.

(*h*) At $6^h\ 20^m\ 50^s$.
(*i*) At $0^h\ 43^m\ 17^s$.
(*k*) At Wire IV.
(*l*) At Wire. II.

Date.	Object Observed.	Microscope. I.	II.	III.	IV.	V.	VI.	Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
April 6	α Persei	14·5	23·0	12·5	15·9	24·0	11·8	96 49 16·9	....	48·0	29·45	46·3	+0 6·8	+49 16 20·5
	(a) α Tauri	28·5	36·2	26·0	29·2	38·2	28·4	129 54 31·1	+0·4	48·0	29·41	46·2	+0 47·9	+16 10 24·8
	(b) β Orionis *	35·7	45·0	32·8	38·0	42·0	34·6	154 27 38·1	−0·1	48·0	29·40	46·3	+1 59·1	− 8 23 52·9
April 12	(c) α Ursæ Minor. S.P. *	30·5	40·0	26·9	29·9	42·0	29·2	54 32 33·1	−4·9	43·8	......	......	−0 41·2	+88 26 2·8
	ζ Ursæ Majoris	45·0	52·3	42·9	48·0	55·7	43·4	90 18 47·8	....	43·7	29·16	45·3	+0 0·2	+55 46 56·2
	η Ursæ Majoris	40·1	47·8	39·0	42·0	52·0	37·2	95 57 43·0	....	44·0	......	......	+0 5·9	+50 7 55·3
	Saturn South L.	32·5	39·4	27·8	34·8	40·0	32·0	155 53 34·4	....	44·7	29·15	45·6	+2 6·8	− 9 49 57·0
April 13	α Persei	15·9	24·2	12·8	16·5	24·8	14·3	96 49 18·1	....	45·1	29·11	45·8	+0 6·7	+49 16 19·4
	Venus South L.	59·3	66·9	56·5	60·8	67·8	55·1	122 32 1·1	....	45·4	29·11	45·9	+0 36·3	+23 33 6·8
	α Tauri	28·3	35·8	26·7	31·0	38·3	29·0	129 54 31·5	....	45·8	......	......	+0 47·6	+16 10 25·1
	β Orionis	36·0	43·3	32·5	37·0	44·0	34·2	154 27 37·8	....	45·6	29·14	46·0	+1 58·6	− 8 23 52·2
	(d) α Ursæ Minor. S.P.	30·5	38·2	25·2	29·1	42·2	29·4	54 32 32·4	−2·8	38·7	29·35	43·5	−0 41·9	+88 26 3·5
April 15	Venus South L.	41·1	47·8	40·0	41·0	51·9	37·8	122 3 43·2	....	57·8	29·78	50·7	+0 35·5	+24 1 25·5
	(e) β Orionis	35·1	42·8	33·8	38·1	42·5	33·5	154 27 37·6	−0·2	59·8	......	......	+1 57·6	− 8 23 50·8
	β Tauri *	23·0	29·0	20·7	24·1	32·0	21·2	117 37 24·9	....	60·0	29·79	53·7	+0 29·5	+28 27 49·8
	(f) α Ursæ Minor. S.P. *	24·0	34·2	22·0	25·3	36·6	22·2	54 32 27·3	....	50·1	29·78	49·8	−0 41·5	+88 26 1·6
	α Virginis	51·8	59·1	49·2	54·0	60 2	47·1	156 21 53·6	....	50·6	......	......	+2 10·7	−10 18 20·1
	(g) Saturn North L.	31·5	38·1	28·2	33·1	39·6	29·0	155 48 33·2	....	51·2	29·77	50·0	+2 7·2	− 9 44 56·2
April 18	Saturn South L.	6·5	14·2	0·5	7·2	13·5	5·0	155 44 7·8	....	38·3	29·60	42·8	+2 9·6	− 9 40 33·2
April 20	Venus South L.	30·5	38·8	31·0	31·9	40·7	29·9	121 3 33·8	....	52·8	29·14	50·0	+0 33·8	+25 1 36·6
	α Orionis *	26·8	33·7	24·7	26·6	36·2	24·9	138 42 28·8	....	52·5	29·12	49·5	+1 3·8	+ 7 22 11·6
	Jupiter Centre	45·0	52·8	43·3	46·0	54·1	42·2	122 43 47·2	....	51·5	29·11	49·0	+0 36·1	+23 21 20·9
	α Ursæ Majoris *	32·8	40·8	30·1	34·4	44·0	30·4	83 27 35·5	....	43·8	29·17	45·0	−0 6·7	+62 38 15·4
	Vesta	30·9	36·6	27·7	30·9	40·0	30·2	131 23 32·7	....	42·4	29·21	43·7	+0 50·7	+14 41 20·8
	(f) α Ursæ Minor. S.P. *	24·0	33·3	19·7	23·2	36·4	23·5	54 32 26·6	....	41·0	29·25	42·5	−0 41·6	+88 26 0·8
	α Virginis	52·3	58·7	46·8	53·2	59·5	48·8	156 21 53·3	....	41·0	......	......	+2 11·1	−10 18 20·2
	Saturn North L.	45·2	53·0	41·0	46·2	55·1	42·2	155 40 47·1	....	40·2	29·27	41·5	+2 7·4	− 9 37 10·3
April 21	(h) α Ursæ Majoris *	32·0	38·9	28·5	32·2	43·5	30·0	83 27 34·2	+1·2	44·9	29·12	45·6	−0 6·7	+62 38 15·5
	Vesta	26·0	31·0	22·1	25·0	35·9	24·6	131 24 27·4	....	44·5	......	......	+0 50·3	+14 40 26·5
	γ Ursæ Majoris	11·0	18·1	7·2	11·1	22·0	8·9	91 29 13·0	....	44·4	29·11	45·5	+0 1·4	+54 36 29·8
	η Ursæ Majoris	37·5	44·2	34·5	38·0	50·0	35·7	95 57 39·9	....	43·8	......	......	+0 5·9	+50 7 58·4
	Saturn South L.	31·9	37·5	26·0	31·5	40·0	31·0	155 39 33·0	....	43·3	29·10	44·5	−2 5·6	− 9 35 54·4
	(i) α Ursæ Minoris	17·8	26·8	14·0	17·1	30·5	16·2	57 40 20·4	+0·1	48·6	29·13	46·2	−0 36·2	+88 25 59·9
April 22	(k) α Aurigæ	61·0	70·0	60·2	63·2	70·8	56·9	100 16 3·7	+0·2	49·3	29·20	47·7	+0 10·2	+45 49 30·1
	α Orionis	25·4	31·8	22·2	25·7	33·3	24·1	138 42 27·1	....	48·8	......	......	+1 4·6	+ 7 22 12·5
	α Canis Majoris *	38·6	44·9	33·9	38·0	43·9	36·5	162 32 39·4	....	47·8	......	......	+2 58·6	−16 29 53·8
	(l) Jupiter Centre	50·5	58·1	49·2	51·0	59·0	47·6	122 44 52·6	+0·9	47·5	29·26	47·6	+0 36·6	+23 20 14·1
	(m) Moon North L.	22·1	27·0	19·0	20·1	29·3	20·0	119 32 23·0	−0·2	46·9	29·28	47·4	+0 32·3	+26 32 49·1
	(f) α Ursæ Minor. S.P.	24·5	32·7	20·0	23·2	35·6	24·2	54 32 26·8	....	40·0	29·37	41·7	−0 41·8	+88 26 0·8
	Saturn North L.	39·8	44·9	33·9	38·6	48·8	37·4	155 37 40·5	....	39·8	29·38	41·0	+2 7·6	− 9 34 3·9
April 23	Moon North L.	6·3	13·9	2·0	6·7	16·8	4·4	121 14 8·3	−0·4	42·7	29·29	43·5	+0 35·0	+24 51 1·3
	(n) α Cygni S.P.	8·0	19·7	3·1	10·2	20·0	6·0	10 52 11·2	−0·6	42·0	......	......	−4 57·6	+44 41 28·8
	α Cephei S.P.	41·0	51·9	37·0	42·4	53·5	38·2	28 0 44·0	....	41·1	......	......	−1 49·6	+61 53 10·2
	α Hydræ	54·8	62·8	50·5	56·2	63·2	53·0	154 0 56·8	....	41·0	......	......	+1 58·2	− 7 57 10·8
	β Cephei S.P.	9·3	19·8	4·8	10·0	21·6	6·9	135 57 12·1	....	40·9	29·32	43·3	−1 20·5	+69 50 7·4
	Vesta	59·5	65·5	56·1	59·0	69·2	56·2	131 27 1·0	....	39·8	29·37	42·8	+0 51·3	+14 37 51·9
	γ Ursæ Majoris	12·4	19·2	7·5	11·0	24·0	9·0	91 29 13·8	....	39·8	......	......	+0 1·4	+54 36 29·0
	(k) α Cassiopeæ S.P.	10·9	21·3	6·2	11·6	22·9	8·0	21 46 13·6	−0·2	38·9	29·38	42·4	−2 26·7	+55 38 2·5
	(f) α Ursæ Minor. S.P. *	25·3	33·8	21·2	23·4	39·1	23·1	54 32 27·6	....	39·0	29·38	41·8	−0 41·9	+88 26 1·5

(a) At $4^h\ 27^m\ 19^s$.
(b) 40^s after transit.
(c) At $13^h\ 9^m\ 34^s$.
(d) At $13^h\ 7^m\ 13^s$.
(e) At $5^h\ 7^m\ 24^s$.
(f) On Meridian.
(g) Very tremulous and ill defined.
(h) 75^s after transit
(i) At $1^h\ 1^m\ 21^s$.
(k) At Wire IV.
(l) At $6^h\ 43^m\ 59^s$.
(m) Faint.
(n) At Wire V.

Date.	OBJECT OBSERVED.	Microscope. I.	II.	III.	IV.	V.	VI.	Mean Reading of Circle.	Reduc-tion to Meri-dian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
April 24	Moon North L. ···· *	28·0	33·2	24·9	27·1	36·3	27·0	124 12 29·4	− 0·6	48·5	29·68	47·0	+0 39·2	+21 52 36·2
	α Cephei S. P.········	38·7	51·0	38·8	42·3	51·7	37·5	28 0 43·4	········	······	······	······	−1 49·3	+61 53 9·9
	(*a*) α Hydræ···············	54·9	63·0	51·9	56·2	61·2	52·0	154 0 56·6	− 0·1	48·0	······	······	+1 57·8	− 7 57 10·1
	β Cephei S. P.········	8·8	18·5	6·5	9·1	19·8	5·1	35 57 11·4	········	47·8	······	······	−1 20·3	+69 50 6·9
	α Leonis···············	50·4	57·1	48·7	50·7	59·8	47·1	133 18 52·3	········	46·8	29·69	46·7	+0 54·6	+12 45 57·3
	(*b*) α Ursæ Minoris ······	18·9	27·0	16·0	16·3	30·8	15·5	57 40 20·8	········	48·6	29·62	46·9	−0 36·8	+88 26 0·2
April 25	α Canis Majoris ···· *	34·9	41·6	31·6	35·0	41·6	33·3	162 32 36·4	········	49·6	······	······	+3 0·5	−16 29 52·7
	(*c*) Jupiter Centre········	38·2	44·8	37·6	37·6	47·5	35·1	122 46 40·2	+ 0·5	49·6	29·68	48·6	+0 37·1	+23 18 26·4
	(*d*) Moon North L.·······	62·3	68·9	59·5	62·3	72·8	58·1	128 20 4·0	− 9·5	44·7	29·68	46·5	+0 46·0	+17 45 3·7
	ϱ Leonis ···············	49·2	56·0	47·4	50·0	59·1	45·6	135 55 51·2	········	43·8	······	······	+1 0·2	+10 8 52·8
	Vesta····················	34·3	40·9	32·7	35·2	44·1	33·0	131 29 36·7	········	42·7	29·67	44·6	+0 51·6	+14 35 15·9
	η Ursæ Majoris ·······	36·2	43·5	33·6	36·0	48·4	35·0	95 57 38·7	········	41·0	······	······	+0 6·0	+50 7 59·5
	Saturn South L.·······	20·1	25·9	14·7	19·5	28·5	19·4	155 33 21·3	········	41·0	······	······	+2 8·1	− 9 29 45·2
	α Bootis················	48·7	52·8	45·2	48·1	59·9	45·7	126 2 50·0	········	41·0	29·66	43·0	+0 42·6	+20 2 11·6
	(*e*) α Ursæ Minoris·······	19·8	28·2	16·3	17·4	32·7	18·2	57 40 22·1	+ 0·1	42·4	29·52	45·0	−0 37·2	+88 25 59·2
April 26	(*f*) α Aurigæ··············	61·4	70·0	61·0	61·8	71·9	57·1	100 16 3·8	+ 0·1	45·7	29·46	45·8	+0 10·3	+45 49 30·0
	(*g*) Moon North L.·······	37·8	43·6	34·5	37·5	47·2	37·2	133 26 39·7	− 3·1	41·0	29·50	44·4	+0 55·2	+12 38 12·4
	α Cassiopeæ S.P.·····	11·2	20·6	5·9	11·2	22·1	7·6	21 46 13·1	········	40·1	29·53	43·3	−2 27·1	+55 38 1·8
	(*b*) α Ursæ Minor. S.P.···	23·8	32·2	19·0	21·3	35·0	22·1	54 32 25·6	········	39·9	29·54	42·9	−0 42·1	+88 25 59·3
	ζ Ursæ Majoris·······	41·8	49·2	39·8	42·9	53·7	40·7	90 18 44·6	········	39·5	······	······	+0 0·2	+55 46 59·4
	(*h*) Saturn North L.·······	30·0	36·8	24·9	28·5	39·2	29·4	155 31 31·5	0·0	39·0	29·55	42·4	+2 8·0	− 9 27 55·3
	(*i*) α Ursæ Minoris ······	59·7	69·0	56·2	57·9	72·0	56·7	57 40 1·9	+21·3	45·7	29·72	44·8	−0 37·2	+88 25 58·2
April 27	(*k*) Sun North L.··········	43·0	48·2	40·7	43·5	52·4	42·4	131 52 45·0	+ 0·4	47·6	29·73	45·5	+0 51·9	+14 12 6·9
	α Tauri·················	28·9	35·1	26·2	27·9	39·1	29·9	129 54 31·2	········	48·9	29·73	46·6	+0 48·3	+16 10 24·7
	β Tauri············· *	24·7	29·8	20·8	23·8	34·8	23·2	117 37 26·1	········	49·0	······	······	+0 30·2	+28 27 47·9
	(*c*) α Canis Majoris ······	35·4	43·0	31·3	35·0	43·7	34·0	162 32 37·0	− 0·4	45·5	······	······	+3 2·3	−16 29 54·7
	(*b*) α Ursæ Minoris······	20·9	29·7	17·8	19·0	33·2	19·0	57 40 23·3	········	43·8	29·50	44·9	−0 37·0	+88 25 57·9
April 28	Venus Centre········	25·4	32·1	23·8	24·4	34·4	24·2	119 59 27·4	········	42·2	29·54	44·7	+0 33·6	+26 5 43·2
	α Canis Majoris····· *	32·9	39·1	27·5	32·0	39·2	32·5	162 32 33·9	········	40·8	29·56	44·7	+3 3·1	−16 29 52·8
	(*l*) β Leonis···············	33·4	40·3	30·8	33·3	44·9	32·3	130 35 35·8	+ 0·5	33·3	29·62	40·0	+0 51·0	+15 29 16·9
	ο Virginis···············	3·9	12·9	0·2	5·2	15·1	1·2	136 26 6·4	········	33·1	29·62	37·2	+1 2·6	+ 9 38 35·2
	Moon North L. ·······	44·0	51·9	38·2	45·2	54·8	44·0	145 47 46·3	− 1·1	32·8	······	······	+1 27·4	+ 0 16 31·6
	δ Virginis···············	8·8	18·0	4·0	9·0	19·4	7·0	141 47 11·1	········	32·0	······	······	+1 15·7	+ 4 17 17·4
	(*b*) α Ursæ Minor. S.P.···	25·0	33·1	19·8	22·9	37·2	25·5	54 32 27·3	········	32·0	29·60	34·2	−0 42·9	+88 26 0·2
	ζ Ursæ Majoris ······	42·6	49·0	37·6	42·9	53·6	42·2	90 18 44·6	········	32·0	······	······	+0 0·2	+55 46 59·4
	Saturn South L.·······	44·9	51·8	38·0	45·2	55·7	44·4	155 28 46·6	········	32·0	29·58	33·7	+2 9·9	− 9 25 12·3
	(*m*) α Ursæ Minoris ······	60·6	68·6	56·8	57·5	71·9	56·5	57 40 2·0	+22·8	40·0	29·57	40·8	−0 37·4	+88 25 56·8
April 29	α Tauri·················	28·0	34·7	26·3	28·5	38·5	29·6	129 54 30·9	········	43·1	29·53	41·8	+0 48·6	+16 10 24·7
	Venus Centre·········	18·2	26·1	16·8	19·0	28·7	18·3	119 54 21·2	········	43·9	29·53	42·5	+0 33·3	+26 10 49·7
	δ Virginis···············	11·3	18·8	7·2	11·3	19·3	10·4	141 47 13·1	········	38·1	29·52	40·0	+1 14·4	+ 4 17 16·7
	(*b*) α Ursæ Minor. S.P.···	22·3	31·1	18·4	20·1	33·6	21·5	54 32 24·6	········	38·0	······	······	−0 42·2	+88 25 58·2
	Moon North L. ·······	18·5	25·0	12·6	19·0	26·2	18·2	152 29 19·9	− 1·1	37·5	29·52	39·2	+1 52·4	− 6 25 27·0
	(*n*) α Bootis············· *	47·7	52·2	42·7	46·2	56·5	45·8	126 2 48·6	+ 0·4	37·2	29·51	38·7	+0 42·8	+20 2 12·4
April 30	α Ursæ Majoris····· *	32·3	38·8	29·1	31·9	43·9	29·8	83 27 34·4	········	40·0	29·55	41·6	−0 6·9	+62 38 16·7
	Vesta ···················	38·7	44·9	36·5	39·2	49·2	37·8	131 43 41·0	········	39·9	29·55	41·1	+0 52·2	+14 21 11·0
	γ Virginis·············	17·0	24·8	13·8	16·8	27·0	15·1	146 37 19·1	········	39·7	29·54	41·2	+1 28·6	− 0 33 3·5
May 1	α Ursæ Majoris····· *	31·8	37·8	29·2	30·6	42·0	29·5	83 27 33·5	········	40·1	29·85	43·4	−0 7·0	+62 38 17·8
	(*o*) Vesta···················	56·8	64·0	54·8	57·0	66·6	53·6	131 46 58·8	+ 0·1	40·5	29·87	42·8	+0 52·8	+14 17 52·6
	γ Virginis·············	16·0	23·3	13·0	16·2	25·2	14·0	146 37 18·0	········	40·5	29·88	42·8	+1 29·5	− 0 33 3·2
	(*b*) α Ursæ Minor. S.P.···	21·0	30·6	18·0	20·0	33·3	20·5	54 32 24·0	········	40·0	29·89	42·9	−0 42·6	+88 25 57·1

(*a*) 35^s after transit.
(*b*) On Meridian.
(*c*) 50^s after transit.
(*d*) At 9^h 58^m 3^s.
(*e*) At 1^h 1^m 4^s.
(*f*) 15^s after transit.
(*g*) At 10^h 48^m 14^s.
(*h*) At Wire IV; faint.
(*i*) At 1^h 19^m 48^s.
(*k*) At Wire IV.
(*l*) 1^m after transit.
(*m*) At 1^h 20^m 30^s.
(*n*) At Wire V.
(*o*) 30^s after transit.

Date.	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
May 1	ζ Ursæ Majoris	39·2	46·5	37·6	40·6	51·5	37·9	90 18 42·2	....	39·7	......	......	+0 0·2	+55 47 1·9
	η Ursæ Majoris	34·3	42·8	32·6	35·2	47·6	33·0	95 57 37·5	....	39·3	......	......	+0 6·1	+50 8 0·7
	(a) Saturn North L.	61·8	70·1	59·0	62·2	72·3	58·9	155 24 4·0	0·0	39·3	29·90	42·7	+2 8·7	− 9 20 28·4
	Moon South L.	53·8	63·3	50·0	54·3	62·8	50·2	165 29 55·7	− 0·9	39·0	29·91	42·3	+3 44·8	−19 27 55·3
	(b) α Ursæ Minoris	21·8	29·0	18·1	18·8	32·6	19·0	57 40 23·2	+ 2·4	43·2	30·01	44·1	−0 37·7	+88 25 56·4
May 2	Sun South L.	25·1	31·6	22·0	24·3	33·9	24·6	130 52 27·0	....	44·8	30·02	44·8	+0 50·9	+15 12 26·4
	β Ursæ Minor. S.P.	15·5	26·0	13·9	16·3	27·1	14·5	40 56 18·9	....	44·6	......	......	−1 8·4	+74 49 26·2
	α Aurigæ	60·2	70·1	60·7	62·9	71·5	57·0	100 16 3·8	....	45·7	30·02	45·6	+0 10·5	+45 49 30·0
	(c) β Tauri	24·8	30·2	21·6	25·0	33·5	24·0	117 37 26·6	+ 0·3	45·7	......	......	+0 30·7	+28 27 46·7
	Venus Centre	38·6	46·0	37·0	39·2	48·4	37·2	119 42 41·0	....	45·2	......	......	+0 33·5	+26 22 29·8
	α Canis Majoris	33·0	39·2	27·1	33·2	38·9	32·0	162 32 33·8	....	45·7	30·03	45·5	+3 4·1	−16 29 53·6
	Jupiter Centre	26·0	33·0	24·2	25·1	35·6	25·2	122 51 28·2	....	45·5	......	......	+0 37·9	+23 13 38·2
	(d) α Ursæ Minor. S.P.	29·0	39·1	26·0	27·7	41·2	28·5	54 32 32·0	− 8·0	40·7	30·06	43·4	−0 42·7	+88 25 57·0
	(e) α Ursæ Minoris	22·4	30·3	19·0	20·8	33·7	20·3	57 40 24·4	+ 1·5	48·0	29·98	45·2	−0 37·3	+88 25 55·7
May 3	(f) Sun North L.	56·5	64·1	54·8	57·5	67·0	54·8	130 2 59·1	+ 0·7	46·0	29·97	46·0	+0 49·2	+16 1 55·3
	α Ursæ Majoris *	29·8	38·1	26·8	30·0	42·4	28·2	83 27 32·5	....	41·9	29·89	44·8	−0 6·9	+62 38 18·7
	γ Ursæ Majoris	8·9	16·2	5·5	8·5	19·6	6·0	91 29 10·8	....	41·8	29·89	43·8	+0 1·4	+54 36 32·1
May 5	(g) α Ursæ Minor. S.P. *	27·4	37·4	23·9	26·1	41·7	26·0	54 32 30·4	− 7·5	42·1	29·91	44·5	−0 42·4	+88 25 56·2
	η Ursæ Majoris	33·8	41·5	30·8	34·1	47·5	32·8	95 57 36·7	....	41·9	......	......	+0 6·0	+50 8 1·6
	Saturn South L.	33·9	41·5	30·5	35·1	44·1	33·3	155 18 36·4	....	41·4	29·92	43·7	+2 7·6	− 9 14 59·7
	α Bootis	46·6	51·8	43·8	47·2	57·7	43·9	126 2 48·5	....	41·1	......	......	+0 43·0	+20 2 12·8
	(h) α Ursæ Minoris	19·5	28·2	17·1	19·0	32·5	18·1	57 40 22·4	+ 3·2	45·1	30·04	45·2	−0 37·6	+88 25 56·3
May 6	Sun South L.	16·2	22·0	14·8	15·2	27·7	14·4	129 43 18·4	....	46·3	30·05	46·1	+0 48·8	+16 21 37·1
	α Persei	19·0	27·0	16·4	18·8	30·2	16·8	96 49 21·4	....	46·6	......	......	+0 6·9	+49 16 16·0
	β Tauri	24·8	32·7	22·0	26·0	36·3	22·2	117 37 27·4	....	46·8	30·06	46·9	+0 30·7	+28 27 46·2
	α Orionis	22·8	30·0	19·6	23·8	33·0	21·0	138 42 25·1	....	47·0	......	......	+1 6·7	+ 7 22 12·5
	Venus Centre	51·4	59·7	50·4	53·0	62·3	47·2	119 35 54·0	....	47·0	30·07	47·3	+0 33·3	+26 29 17·0
	Vesta	37·1	43·5	35·3	37·9	47·6	35·2	132 6 39·5	....	44·0	30·12	45·7	+0 53·4	+13 58 11·4
	γ Virginis	17·2	24·9	13·6	18·2	25·4	16·0	146 37 19·3	....	44·0	30·13	45·5	+1 29·5	− 0 33 4·5
	(i) α Ursæ Minor. S.P.	20·1	30·0	17·5	20·1	32·7	19·1	54 32 23·3	− 0·3	44·0	......	......	−0 42·6	+88 25 56·1
	Saturn North L.	50·8	60·2	48·8	51·5	61·0	47·8	155 16 53·4	....	42·7	30·13	45·0	+2 8·0	− 9 13 17·1
	(k) α Ursæ Minoris	23·0	31·2	20·8	22·0	35·6	21·5	57 40 25·7	0·0	46·1	30·17	46·2	−0 37·7	+88 25 56·3
May 7	(l) Venus Centre	42·2	51·0	42·9	43·1	53·6	38·8	119 35 45·3	+ 0·4	52·7	30·15	51·2	+0 33·0	+26 29 25·6
	α Canis Majoris	32·3	40·1	30·9	33·9	41·0	31·2	162 32 34·8	....	52·5	......	......	+3 2·2	−16 29 52·7
	(l) Jupiter Centre	28·1	35·8	28·4	28·7	36·8	27·8	122 55 30·9	+ 0·4	52·8	30·15	51·2	+0 37·6	+23 9 35·4
	α Ursæ Majoris	29·5	38·7	29·2	30·0	42·7	27·1	83 27 32·9	....	46·7	30·14	47·7	−0 6·9	+62 38 18·3
	(m) γ Ursæ Majoris	8·0	15·0	5·0	8·0	18·7	5·1	91 29 10·0	+ 0·1	45·0	......	......	+0 1·4	+54 36 32·8
	α Ursæ Minor. S.P.	22·6	32·1	19·8	20·0	35·2	20·0	54 32 24·9	− 0·2	43·8	30·15	46·0	−0 42·6	+88 25 57·8
	(l) Saturn South L.	45·5	55·0	44·7	46·3	56·3	42·9	155 15 48·5	− 0·1	43·9	30·15	45·9	+2 7·7	− 9 12 11·8
May 8	Mercury Centre	53·2	62·0	53·2	55·2	64·2	50·1	125 33 56·3	....	54·0	30·11	49·9	+0 41·3	+20 31 6·7
	(n) α Ursæ Minoris	23·4	32·0	21·9	21·2	35·8	21·0	57 40 25·9	+ 0·1	54·5	30·01	49·4	−0 36·8	+88 25 55·1
May 9	Sun North L.	36·5	41·7	35·3	34·3	43·8	34·0	128 22 37·6	....	57·7	30·01	51·8	+0 45·3	+17 42 21·4
	(l) Venus Centre	13·0	19·7	12·4	11·3	20·7	7·5	119 37 14·1	+ 0·4	62·9	29·99	55·3	+0 32·1	+26 27 57·7
	(l) Jupiter Centre	18·0	26·2	19·8	18·0	26·8	15·3	122 57 20·7	+ 0·4	63·9	......	......	+0 36·6	+23 7 46·6
	Vesta	53·4	61·2	52·5	53·8	62·5	48·0	132 20 55·2	....	55·0	29·99	53·0	+0 52·4	+13 43 56·7
	α Ursæ Minoris	23·5	32·0	22·2	20·9	35·2	21·3	57 40 25·9	+ 0·2	58·0	29·92	55·2	−0 36·4	+88 25 54·6
May 10	Sun South L.	31·2	36·8	31·2	28·0	40·2	28·8	128 38 32·7	....	62·7	29·92	59·8	+0 45·1	+17 26 26·5
	Mercury Centre	54·0	62·8	57·2	54·8	63·4	50·9	124 20 57·2	....	63·5	......	......	+0 38·5	+21 44 8·6
	Venus Centre	49·6	57·5	52·4	49·4	59·0	44·6	119 38 52·1	....	64·8	29·88	61·5	+0 31·9	+26 26 20·3

(a) 30^{s} after transit.
(b) At $1^{h}\ 6^{m}\ 31^{s}$.
(c) 35^{s} after transit.
(d) At $13^{h}\ 12^{m}\ 14^{s}$.
(e) At $0^{h}\ 54^{m}\ 38^{s}$.
(f) At Wire V; faint.
(g) At $13^{h}\ 11^{m}\ 42^{s}$.
(h) At $1^{h}\ 7^{m}\ 33^{s}$.
(i) At $13^{h}\ 2^{m}\ 5^{s}$.
(k) At $0^{h}\ 59^{m}\ 37^{s}$.
(l) At Wire V.
(m) 15^{s} after transit.
(n) At $0^{h}\ 58^{m}\ 46^{s}$.

Date.	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
May 10	(*a*) α Ursæ Minor. S.P. *	18·6	30·0	19·0	18·0	32·0	15·7	54 32 22·2	………	55·0	29·86	55·0	−0 41·2	+88 25 56·7
	η Ursæ Majoris	31·3	40·3	32·5	32·2	45·2	29·1	95 57 35·0	………	54·0	……	……	+0 5·9	+50 8 3·4
	Saturn North L.	27·1	36·1	27·5	28·2	37·0	26·0	155 11 30·4	………	53·9	……	……	+2 3·2	− 9 7 49·3
	α Bootis *	45·2	53·2	46·2	45·7	55·4	41·4	126 2 47·9	………	53·9	29·84	54·0	+0 41·7	+20 2 14·7
May 11	Sun North L.	22·7	30·1	24·2	21·1	33·0	21·0	127 51 25·4	………	63·8	29·74	60·6	+0 43·5	+18 13 35·4
	α Ursæ Majoris *	30·1	39·8	29·0	30·0	42·0	26·4	83 27 32·9	………	56·8	29·69	55·8	−0 6·7	+62 38 18·1
	Vesta	19·0	26·6	18·8	18·0	29·6	15·8	132 31 21·3	………	55·6	……	……	+0 52·1	+13 33 30·9
	γ Ursæ Majoris	7·0	16·7	6·6	6·6	19·2	3·1	91 29 9·9	………	55·4	29·69	55·7	+0 1·3	+54 36 33·1
May 12	(*b*) Sun South L.	53·5	61·2	52·5	52·8	64·3	49·1	128 7 55·6	+0·7	60·0	29·77	57·7	+0 44·3	+17 57 3·7
	(*c*) Mercury Centre	42·8	50·9	44·4	42·2	55·6	40·1	123 17 46·0	+1·1	62·6	29·78	58·6	+0 36·9	+22 47 20·3
	α Aurigæ	65·2	72·9	65·0	64·9	74·3	59·1	100 16 6·9	………	62·9	29·78	60·0	+0 10·1	+45 49 27·3
	α Orionis	23·8	31·1	22·5	22·5	32·7	22·0	138 42 25·8	………	63 0	……	……	+1 3·9	+ 7 22 14·6
	Venus Centre	51·8	59·6	54·0	51·0	63·9	47·3	119 43 54·6	………	63·9	……	……	+0 32·0	+26 21 17·7
	Jupiter Centre	65·0	74·3	66·0	64·1	75·7	62·1	123 0 7·9	………	63·6	29·80	59·8	+0 36·4	+23 5 0·0
	α Ursæ Majoris *	30·0	38·3	28·8	29·5	42·8	26·1	83 27 32·6	………	56·2	29·85	56·5	−0 6·7	+62 38 18·4
	(*a*) α Ursæ Minor. S.P.	17·6	28·2	17·2	15·1	31·6	14·8	54 32 20·8	………	54·7	29·86	55·7	−0 41·2	+88 25 55·3
May 13	(*d*) α Ursæ Minor. S.P.	18·6	28·6	18·3	15·2	32·3	15·3	54 32 21·4	−0·3	49·9	30·08	54·2	−0 41·9	+88 25 54·9
May 14	Venus Centre	10·1	19·0	10·2	8·0	21·8	5·5	119 51 12·4	………	62·3	30·23	60·5	+0 32·7	+26 13 59·2
	Jupiter Centre	6·3	14·3	6·4	3·8	15·7	1·7	123 2 8·0	………	62·0	……	……	+0 37·1	+23 2 59·2
	(*e*) Vesta	20·0	26·8	19·9	19·3	31·6	16·0	132 48 22·3	+0 4	56·0	30·23	56·8	+0 53·5	+13 16 28·1
	(*c*) γ Ursæ Majoris	6·8	13·8	5·8	4·5	18·2	1·0	91 29 8·3	+0·4	56·0	……	……	+0 1·4	+54 36 34·2
	(*a*) α Ursæ Minor. S.P. *	18·7	28·9	17·0	15·3	33·5	15·0	54 32 21·4	………	52·0	30·23	54 7	−0 41·9	+88 25 55·2
	α Virginis	51·8	59·1	50·1	52·0	61·8	46·5	156 21 53·6	………	51·7	30·22	54·3	+2 12·3	−10 18 21·6
May 15	Sun North L.	32·9	39·2	33·2	30·2	44·1	30·1	126 52 34·9	………	56·9	30·20	53·7	+0 43·2	+19 12 26·2
May 17	Mercury Centre	60·2	68·8	62·3	59·5	71·0	56·0	121 25 3·0	………	70·5	30·20	65·8	+0 34·2	+24 40 7·1
May 18	Sun South L.	22·9	31·4	22·8	21·6	37·4	19·9	126 43 26·0	………	51·0	30·09	55·4	+0 43·4	+19 21 34·9
	Mercury Centre	62·0	71·8	60·2	61·5	75·5	57·1	121 10 4·7	………	52·9	30·07	55·0	+0 35·0	+24 55 4·6
	(*f*) α Ursæ Minor. S.P. *	22·6	31·6	20·0	18·4	38·2	20·0	54 32 25·1	−3·6	51·3	30·06	54·5	−0 41·8	+88 25 55·4
	α Virginis	51·7	59·2	49·0	50·0	62·8	46·5	156 21 53·2	………	51·3	……	……	+2 11·7	−10 18 20·6
	η Ursæ Majoris *	30·2	38·1	28·0	28·1	43·8	27·2	95 57 32·6	………	51·0	……	……	+0 6·0	+50 8 5·7
	Saturn South L.	46·8	57·2	45·2	45·9	59·5	43·2	155 1 49·6	………	51·0	30·06	54·0	+2 4·0	− 8 58 9·3
May 19	Sun North L.	53·0	58·6	52·2	50·1	64·9	47·0	125 58 54·3	………	56·0	29·94	56·8	+0 41·5	+20 6 8·5
	α Cassiopeæ S.P.	6·8	17·2	5·0	4·9	19·3	0:3	21 46 8·9	………	54·0	29·83	57·2	−2 24·1	+55 38 0·5
	(*a*) α Ursæ Minor. S.P.	18·0	27·6	17·9	14·2	32·8	13·5	54 32 20·7	………	51·0	……	……	−0 41·5	+88 25 54·9
	ζ Ursæ Majoris	34·3	42·2	35·5	32·3	50·0	30·4	90 18 37·4	………	50·5	……	……	+0 0·2	+55 47 6·7
	η Ursæ Majoris	30·8	38·9	31·2	28·0	47·2	27·7	95 57 34·0	………	50·0	……	……	+0 5·9	+50 8 4·4
	Saturn North L.	19·8	28·0	18·8	17·7	32·9	16·2	155 0 22·2	………	50·2	29·83	54·4	+2 3·1	− 8 56 41·0
May 21	Sun South L.	36·8	43·4	35·9	34·9	50·1	33·2	126 5 39·1	………	50·0	29·77	52·4	+0 42·0	+19 59 23·2
May 23	Sun North L.	33·3	38·3	30·4	28·8	45·5	30·3	125 10 34·4	………	45·9	29·84	48·4	+0 41·1	+20 54 28·8
	Jupiter Centre	10·1	17·9	8·4	7·5	22·4	8·5	123 12 12·5	………	46·3	29·86	50·2	+0 38·1	+22 52 53·7
	Saturn South L.	14·9	24·7	12·2	13·1	28·9	12·8	154 56 17·8	………	42·8	29·90	46·8	+2 5·1	− 8 52 38·6
	α Bootis *	42·9	48·2	39·3	39·3	54·9	39·2	126 2 44·0	………	42·7	……	……	+0 42·8	+20 2 17·5
	α^2 Libræ	19·4	27·2	15·7	16·2	32·2	17·1	161 24 21·3	………	42·1	……	……	+2 53·0	−15 21 30·0
	(*g*) β Ursæ Minoris	28·7	36·2	24·0	25·2	43·9	26·8	71 16 30·8	+0·3	42·3	29·91	45·6	−0 20·2	+74 49 33·4
	(*a*) α Ursæ Minoris	27·9	35·8	25·5	23·7	42·4	24·9	57 40 30·0	………	45·6	29·96	48·8	−0 37·5	+88 25 51·8
May 24	Sun South L.	58·0	65·0	56·7	55·8	70·0	53·0	125 30 59·8	………	49·4	29·96	49·9	+0 41·5	+20 34 3·0

(*a*) On Meridian.
(*b*) At Wire V.
(*c*) 40^s after transit.

(*d*) At 13^h 2^m 16^s.
(*e*) At 11^h 38^m 12^s.

(*f*) At 13^h 7^m 55^s.
(*g*) At 14^h 51^m 18^s.

Date	OBJECT OBSERVED.	Microscope. I.	II.	III.	IV.	V.	VI.	Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
May 25	Sun North L. ………	31·1	37·5	30·5	27·0	44·2	24·9	124 48 32·5	………	54·8	30·01	54·2	+0 40·0	+21 16 31·8
	α Aurigæ ………	65·7	75·2	65·9	65·1	79·0	59·0	100 16 8·3	………	53·6	30·01	53·9	+0 10·4	+45 49 25·6
	Mercury Centre ………	44·8	53·2	46·4	43·5	59·8	39·5	120 27 47·9	………	53·8	30·01	53·8	+0 33·9	+25 37 22·5
	Jupiter Centre ………	40·2	47·5	40·8	37·8	53·5	36·5	123 14 42·7	………	54·8	30·01	54·0	+0 37·7	+22 50 23·9
	Venus North L. ………	38·7	46·9	38·9	36·2	52·5	34·7	121 8 41·3	………	54·5	……	……	+0 34·8	+24 56 28·2
May 26	Sun South L. ………	38·0	44·2	37·4	34·9	50·8	33·7	125 9 39·8	………	50·7	30·08	52·7	+0 41·0	+20 55 23·5
	Mercury Centre ………	27·1	36·2	27·5	25·5	42·0	24·3	120 29 30·4	………	53·0	30·07	53·5	+0 34·1	+25 35 39·8
	α Geminor. following	42·2	50·3	41·5	40·2	56·7	37·5	113 50 44·7	………	56·0	……	……	+0 25·4	+32 14 34·2
	Venus South L. ………	57·2	67·0	58·0	55·9	72·2	52·6	121 19 0·5	………	……	……	……	+0 34·9	+24 46 8·9
	β Geminorum ………	6·5	16·0	6·0	6·8	21·0	1·7	117 40 9·7	………	56·8	30·06	54·5	+0 30·1	+28 25 4·5
	Moon North L. ………	31·9	39·2	30·6	31·1	44·9	28·3	149 10 34·3	− 1·1	52·6	……	……	+1 36·7	− 3 6 25·6
	(a) α Ursæ Minor. S.P. …	15·4	25·9	14·2	13·7	29·2	12·0	54 32 18·4	0·0	52·9	30·07	54·2	−0 41·6	+88 25 52·5
	η Ursæ Majoris ………	28·8	38·1	30·1	28·0	43·7	25·4	95 57 32·4	………	52·0	……	……	+0 5·9	+50 8 6·0
	Saturn North L. ………	63·0	72·8	62·6	63·0	75·6	58·8	154 53 6·0	………	52·7	30·08	54·4	+2 2·8	− 8 49 24·5
May 27	Sun North L. ………	55·2	62·2	55·0	53·5	67·1	50·7	124 27 57·3	………	61·4	30·12	57·0	+0 39·1	+21 37 7·9
	(b) Jupiter Centre …… *	17·2	25·0	17·6	15·0	31·4	12·9	123 17 19·9	………	60·8	30·11	58·0	+0 37·4	+22 47 47·0
	Venus North L. ………	47·6	57·6	51·4	47·5	63·7	43·6	121 28 51·9	………	61·9	……	……	+0 34·8	+24 36 17·6
May 28	Sun South L. ………	47·3	54·7	47·9	44·3	59·8	40·5	124 49 49·1	………	57·4	30·18	56·2	+0 40·0	+21 15 15·2
	α Aurigæ ………	6·2	16·5	7·3	6·2	19·2	0·0	100 16 9·2	………	57·4	……	……	+0 10·3	+45 49 24·8
	Mercury Centre …… *	37·8	45·4	40·0	35·0	51·7	32·9	120 37 40·5	………	57·4	30·17	57·3	+0 34·0	+25 27 29·8
	α Canis Minoris ………	9·3	18·5	9·0	8·2	20·8	2·2	140 26 11·3	………	58·0	……	……	+1 9·5	+ 5 38 23·5
	Venus South L. ………	57·1	66·5	57·1	54·2	70·0	51·5	121 39 59·4	………	58·8	30·17	57·7	+0 35·4	+24 25 9·5
	Moon North L. ………	31·0	39·3	29·1	28·2	42·6	27·2	161 59 32·9	− 0·9	48·0	30·19	52·8	+2 58·3	−15 56 46·0
	(c) β Ursæ Minoris ………	25·3	34·2	24·0	23·5	41·4	22·2	71 16 28·4	+ 2·5	48·0	……	……	−0 20·2	+74 49 33·6
May 29	β Ursæ Minoris ………	28·4	35·2	26·6	23·1	43·8	24·3	71 16 30·2	………	50·0	30·18	53·8	−0 20·1	+74 49 34·2
	α Serpentis ……… *	56·0	62·9	53·9	51·8	66·8	48·7	139 7 56·7	………	50·1	30·18	53·7	+1 7·5	+ 6 56 40·1
	(d) Moon North L. ………	60·2	67·5	57·7	56·8	69·8	54·2	167 26 1·0	− 9·6	50·0	……	……	+4 15·0	−21 24 22·1
	α Herculis ………	60·8	69·9	59·7	60·1	74·7	57·3	131 30 3·8	………	49·5	30·17	53·3	+0 51·7	+14 34 48·8
May 30	Sun North L. ………	48·1	55·7	48·9	46·2	60·8	43·2	123 59 50·5	………	57·4	30·12	56·4	+0 38·7	+22 5 15·1
	α Aurigæ ………	7·8	14·5	7·1	5·5	18·7	2·0	100 16 9·3	………	56·8	……	……	+0 10·3	+45 49 24·7
	α Canis Minoris ………	9·4	17·5	8·2	7·0	20·7	2·2	140 26 10·8	………	54·6	……	……	+1 9·8	+ 5 38 23·7
	(e) β Geminorum ………	6·8	15·9	7·2	6·1	21·4	1·0	117 40 9·7	+ 0·1	54·2	30·09	56·0	+0 30·2	+28 25 4·3
	Venus North L. ………	61·0	69·0	61·4	57·2	72·7	54·9	122 2 2·7	………	54·0	……	……	+0 36·1	+24 3 5·5
	(f) Moon South L. ………	62·9	70·8	58·9	60·8	72·1	58·0	172 1 3·9	− 8·0	49·7	30·05	53·2	+6 30·0	−26 1 41·6
May 31	Sun South L. ………	45·9	52·0	45·6	44·0	58·3	42·2	124 22 48·0	………	56·8	29·95	57·7	+0 39·1	+21 42 17·2
July 2	Sun South L. ………	23·4	28·9	23·3	19·0	36·0	19·0	123 18 25·0	………	62·7	29·66	59·7	+0 36·7	+22 46 42·6
	Venus North L. ………	53·2	63·0	57·0	53·0	67·4	47·8	129 49 56·9	………	65·0	29·66	60·4	+0 46·4	+16 15 1·0
July 4	(g) Sun North L. ………	42·4	49·0	43·8	39·8	55·0	37·0	122 56 44·4	………	64·2	29·90	60·5	+0 36·4	+23 8 23·5
	Venus South L. ………	53·0	61·1	53·4	50·4	66·6	46·7	130 15 55·2	………	66·0	29·89	62·2	+0 47·4	+15 49 1·7
	α Leonis ………	50·0	56·4	51·2	47·3	62·3	42·2	133 18 51·6	………	66·0	29·88	62·8	+0 52·7	+12 46 0·0
	α Ursæ Majoris ………	31·8	38·5	33·2	28·8	46·7	25·0	83 27 34·1	………	66·4	29·87	63·2	−0 6·6	+62 38 16·8
July 6	(h) Sun North L. ………	11·2	19·1	12·7	8·0	24·8	5·3	123 8 13·6	+ 0·2	63·9	29·73	60·8	+0 36·5	+22 56 54·0
	α Leonis ………	49·3	56·0	49·2	47·2	61·9	43·1	133 18 51·2	………	63·5	29·74	62·2	+0 52·7	+12 46 0·4
	α Ursæ Majoris …… *	31·1	39·4	33·7	28·3	46·2	25·0	83 27 33·8	………	64·2	29·75	61·9	−0 6·6	+62 38 17·1
	(i) α Ursæ Minor. S.P. …	15·0	24·0	15·0	10·5	29·4	7·2	54 32 16·7	………	63·0	29·77	61·7	−0 40·4	+88 25 52·0
	α Virginis ………	54·0	60·5	53·9	51·4	65·0	46·0	156 21 55·0	………	63·0	……	……	+2 7·3	−10 18 18·0
	α Aurigæ S.P. ………	33·9	43·1	34·1	31·2	48·0	28·6	11 59 36·5	………	54·5	29·80	56·7	−4 27·0	+45 49 25·2

(a) At 12^h 59^m 52^s.
(b) Faint.
(c) At 14^h 53^m 34^s.
(d) At 15^h 45^m 55^s.
(e) 15^s after transit.
(f) At 16^h 52^m 25^s.
(g) Tremulous.
(h) At 7^h 3^m 5^s.
(i) On Meridian.

Date.	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
July 7	Sun South L.	59·8	67·8	59·7	57·0	71·3	53·1	123 46 1·4	………	58·1	29·80	58·3	+0 37·9	+22 19 5·0
	(*a*) Venus North L.	62·8	69·8	61·6	59·0	75·0	55·2	130 50 4·2	+ 0·4	60·4	29·80	59·0	+0 48·8	+15 14 50·9
	(*b*) α Ursæ Minor. S.P.	16·9	27·2	16·8	13·3	32·0	12·0	54 32 19·6	− 3·4	61·0	29·79	59·6	−0 40·6	+88 25 51·3
July 8	Sun North L.	11·9	20·2	12·4	8·8	27·0	6·9	123 21 14·5	………	57·7	29·93	57·8	+0 37·5	+22 43 52·3
	Venus South L.	40·4	47·7	41·8	38·9	54·0	36·4	131 1 43·1	………	61·4	29·91	58·7	+0 49·2	+15 3 12·0
July 11	Mars Centre	60·5	67·3	60·7	57·7	72·8	53·6	125 27 2·0	………	54·2	29·25	55·0	+0 40·0	+20 38 2·3
	α Tauri	25·1	32·3	25·9	23·2	40·0	22·2	129 54 28·2	………	53·7	……	……	+0 47·0	+16 10 29·1
July 13	(*c*) α Ursæ Minor. S.P.	14·8	25·1	14·6	11·5	29·8	9·0	54 32 17·3	− 0·3	59·0	29·24	57·4	−0 40·0	+88 25 52·7
	η Ursæ Majoris	23·4	31·2	24·8	19·6	38·4	18·1	95 57 25·8	………	58·9	……	……	+0 5·7	+50 8 12·8
	γ Draconis	56·2	64·8	55·4	56·0	70·0	50·0	94 34 58·9	………	51·4	29·25	56·0	+0 4·4	+51 30 41·0
July 14	(*d*) α Ursæ Majoris	31·6	40·0	32·5	29·8	48·0	28·0	83 27 35·1	+ 0·4	58·0	29·37	56·7	−0 6·6	+62 38 15·4
July 15	(*e*) β Ursæ Minoris	18·8	26·3	17·9	14·2	34·1	12·7	71 16 20·6	+ 0·1	55·1	29·13	56·0	−0 19·2	+74 49 42·8
July 18	Sun South L.	41·4	48·2	41·1	39·0	56·0	36·0	125 20 43·6	………	55·7	29·47	54·8	+0 40·0	+20 44 20·7
	(*f*) Venus North L.	64·4	71·3	63·1	62·2	77·1	58·1	132 21 6·0	0·0	54·0	29·49	54·9	+0 51·6	+13 43 46·7
	(*g*) α Ursæ Majoris *	33·6	41·0	34·0	30·3	47·7	28·3	83 27 35·7	+ 0·1	55·9	29·50	55·0	−0 6·6	+62 38 15·1
	γ Ursæ Majoris	6·2	14·0	4·9	3·6	20·9	0·8	91 29 8·4	………	55·8	……	……	+0 1·3	+54 36 34·6
	(*h*) α Ursæ Minor. S.P.	17·1	27·8	16·8	14·0	32·8	12·8	54 32 20·1	− 2·5	55·0	29·50	55·7	−0 40·7	+88 25 52·6
	γ Draconis	56·1	63·6	55·3	53·0	70·7	49·3	94 34 58·0	………	50·0	29·53	51·7	+0 4·5	+51 30 41·8
July 19	Sun North L.	59·0	66·8	58·6	57·0	72·9	52·5	125 0 1·1	………	52·0	29·21	52·5	+0 39·4	+21 5 3·8
	(*i*) β Ursæ Minoris	19·5	28·2	18·4	16·0	34·6	14·6	71 16 21·8	+ 0·2	53·7	29·25	55·0	−0 19·3	+74 49 41·6
	α Scorpii *	9·7	17·0	6·8	7·8	19·9	4·0	172 3 10·7	………	50·0	29·24	53·8	+6 20·6	−26 3 47·0
July 20	Sun South L. *	39·6	45·9	40·6	36·6	53·7	34·2	125 42 41·6	………	54·8	29·07	53·8	+0 40·0	+20 22 23·9
	(*f*) Venus North L.	25·7	31·8	25·7	23·0	39·2	22·0	132 30 27·9	0·0	54·9	29·06	53·7	+0 51·0	+13 34 26·6
	α Ursæ Majoris	34·3	41·7	33·8	31·6	50·3	29·5	83 27 37·0	………	56·8	29·04	54·9	−0 6·5	+62 38 15·0
	(*k*) α Ursæ Minor. S.P.	18·0	28·8	18·2	15·3	33·1	14·1	54 32 21·1	− 2·8	56·6	29·05	55·2	−0 39·9	+88 25 52·9
	γ Draconis	54·9	63·5	54·3	55·1	69·0	49·8	94 34 57·8	………	50·0	29·06	52·7	+0 4·4	+51 30 43·3
July 22	(*l*) Venus North L.	22·5	27·8	21·5	21·0	34·5	18·3	132 37 24·1	………	56·2	29·50	53·8	+0 51·9	+13 27 29·5
	α Herculis	54·5	62·3	54·5	53·0	67·7	49·4	131 29 56·9	………	51·7	29·60	53·3	+0 50·5	+14 34 58·1
July 25	α Aurigæ S.P.	29·0	39·0	28·7	27·0	44·8	24·0	11 59 32·1	………	52·0	29·65	54·0	−4 27·2	+45 49 19·4
	α Ophiuchi	43·5	47·2	42·9	40·0	56·9	37·3	133 23 44·7	………	51·3	……	……	+0 54·1	+12 41 6·7
	γ Draconis	54·9	61·9	54·9	53·1	69·5	48·0	94 34 57·1	………	51·2	……	……	+0 4·5	+51 30 43·9
	(*m*) δ Ursæ Minoris	53·3	62·5	53·8	50·0	69·0	46·1	59 30 55·7	………	51·0	……	……	−0 34·1	+86 35 23·9
	α Lyræ	16·2	21·8	14·8	13·0	29·3	10·4	107 27 17·3	………	50·9	29·65	53·2	+0 18·0	+38 38 10·2
July 26	α Lyræ	16·0	21·7	16·0	12·1	28·1	10·3	107 27 17·2	………	54·5	29·57	55·3	+0 17·8	+38 38 10·5
	(*n*) Moon South L.	56·5	63·9	55·1	55·0	69·0	50·3	174 2 58·4	− 1·1	54·1	29·58	54·9	+8 11·3	−28 5 23·1
July 27	(*f*) Sun North L.	45·0	50·2	46·7	42·8	56·4	38·8	126 38 46·7	− 0·1	62·7	29·53	59·7	+0 41·4	+19 26 17·5
July 30	(*o*) α Ursæ Majoris	35·7	43·2	35·5	33·2	51·0	31·0	83 27 38·4	+ 1·6	58·8	29·64	55·5	−0 6·6	+62 38 12·1
	(*m*) λ Ursæ Minoris *	23·9	33·6	24·2	21·0	42·1	20·2	57 17 27·6	………	48·9	29·87	51·5	−0 37·6	+88 48 55·5
	α Cygni	37·8	45·0	38·0	35·9	54·2	33·4	101 23 40·8	………	48·5	……	……	+0 11·6	+44 41 53·1
	Pallas	26·5	32·2	24·2	23·0	39·0	22·9	132 22 27·8	………	47·9	29·87	49·5	+0 53·0	+13 42 24·7
July 31	β Geminorum	12·0	20·0	12·0	10·1	26·5	7·2	117 40 14·6	………	55·2	29·46	54·0	+0 29·6	+28 25 1·3
	Mercury Centre	50·8	59·2	51·2	48·5	66·0	45·2	124 28 53·5	………	55·1	……	……	+0 38·8	+21 36 13·2
	(*p*) Venus North L.	43·5	50·1	45·0	42·0	56·6	37·5	132 40 45·7	+ 0·3	55·1	……	……	+0 52·0	+13 24 7·5

(*a*) At Wire I.
(*b*) At 13h 8m 50s.
(*c*) At 12h 58m 33s.
(*d*) At 10h 54m 4s.
(*e*) At 14h 51m 36s.
(*f*) At Wire V.
(*g*) At 10h 53m 42s.
(*h*) At 12h 54m 1s.
(*i*) At 14h 51m 44s.
(*k*) At 12h 53m 32s.
(*l*) Faint.
(*m*) On Meridian.
(*n*) At 19h 9m 58s.
(*q*) At 10h 54m 31s.
(*p*) At 7h 59m 22s.

Date.	OBJECT OBSERVED.	Microscope. I.	II.	III.	IV.	V.	VI.	Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
Aug. 1	(*a*) α Aurigæ S.P.	30·2	40·2	29·5	28·5	45·3	24·8	11 59 33·1	−0·1	51·6	29·36	53·9	−4 24·8	+45 49 22·7
	α Ophiuchi	42·2	47·9	41·8	39·1	56·3	36·2	133 23 44·0	·········	51·2	······	······	+0 53·6	+12 41 7·9
	γ Draconis	52·3	60·0	52·2	51·8	67·3	46·3	94 34 55·0	·········	51·3	······	······	+0 4·4	+51 30 46·1
	(*b*) 51 (Hev.) Ceph. S.P.	13·9	23·5	13·3	10·0	29·1	7·2	53 22 16·0	−0·1	51·4	······	······	−0 42·6	+87 15 47·8
	(*c*) δ Ursæ Minoris	51·4	60·4	51·9	48·2	68·1	43·8	59 30 53·9	·········	51·4	29·38	53·2	−0 33·8	+86 35 25·4
	(*d*) λ Ursæ Minoris	19·8	30·6	20·7	16·5	37·6	15·5	57 17 23·3	+0·9	51·0	······	······	−0 36·9	+88 48 58 2
	(*e*) α Cygni	37·5	44·3	38·1	35·2	53·6	32·3	101 23 40·2	+0·3	51·0	29·40	53·0	+0 11·4	+44 41 53·6
	(*f*) Venus South L.	36·0	42·7	·····	·····	·····	······	132 39 38·1	+0·3	54·7	······	······	+0 52·4	+13 25 14·7
	Mercury Centre	33·3	38·8	32·6	30·7	47·2	29·4	124 41 35·2	·········	54·6	29·68	54·2	+0 39·4	+21 23 30·9
Aug. 2	Sun South L. *	43·9	50·3	43·2	40·2	57·0	38·8	128 37 45·4	·········	54·6	29·69	54·4	+0 45·5	+17 27 14·6
Aug. 4	(*g*) α Ursæ Minor. S. P.	21·0	31·8	21·0	18·3	37·2	16·2	54 32 24·1	−1·3	52·4	29·78	53·8	−0 41·3	+88 25 56·0
	α Ophiuchi	40·7	47·6	40·0	38·9	54·9	35·0	133 23 42·9	·········	49·1	29·80	52·0	+0 54·6	+12 41 8·0
	γ Draconis	52·0	60·7	51·8	51·8	67·2	45·3	94 34 54·8	·········	49·0	······	······	+0 4·5	+51 30 46·2
	(*h*) 51 (Hev.) Ceph. S.P.	15·2	25·9	13·7	12·5	30·0	8·5	53 22 17·5	−0·2	49·0	······	······	−0 43·4	+87 15 48·4
	(*i*) α Lyræ	13·0	21·0	13·0	11·4	28·0	8·0	107 27 15·6	+0·4	49·0	29·81	51·7	+0 18·1	+38 38 11·4
	(*k*) β Ursæ Minor. S.P.	32·8	42·6	32·9	29·9	48·8	28·9	40 56 35·9	−0·4	47·6	29·77	52·3	−1 7·4	+74 49 42·6
	Moon North L.	9·7	16·8	10·0	7·1	24·1	3·9	126 59 12·0	+0·7	48·9	29·78	52·0	+0 43·5	+19 5 49·3
	(*l*) Mars Centre	46·5	54·8	47·0	43·0	60·8	41·8	122 59 49·0	+0·8	51·9	29·79	52·7	+0 37·3	+23 5 18·4
	Venus South L.	61·8	68·8	61·3	60·0	75·1	54·6	132 31 3·5	·········	55·3	29·78	53·8	+0 52·3	+13 33 49·7
	Mercury Centre	42·6	49·8	43·9	40·9	56·6	37·0	125 35 45·1	·········	54·0	······	······	+0 40·9	+20 29 19·5
Aug. 5	α Scorpii *	12·3	21·0	10·8	11·7	23·1	7·0	172 3 14·2	·········	57·1	29·75	55·5	+6 21·4	−26 3 50·1
	α Herculis	53·0	60·4	53·2	50·8	65·8	47·0	131 29 55·0	·········	55·3	29·76	55·5	+0 50·4	+14 35 0·1
	(*m*) Venus North L.	45·0	51·2	45·1	43·2	57·3	39·0	132 26 46·7	+1·0	61·4	29·83	57·9	+0 51·6	+13 38 6·2
Aug. 7	51 (Hev.) Ceph. S.P.	14·8	24·1	15·0	10·5	28·3	6·3	53 22 16·4	−0·1	55·0	······	······	−0 42·9	+87 15 47·9
	(*c*) δ Ursæ Minoris	48·0	59·8	51·3	46·0	65·0	40·3	59 30 51·7	·········	55·0	······	······	−0 34·0	+86 35 27·8
	α Lyræ	12·0	20·0	12·5	10·3	25·7	5·3	107 27 14·2	·········	55·0	29·83	56·7	+0 17·9	+38 38 13·4
	γ Aquilæ	31·0	38·1	32·4	29·7	45·2	25·2	135 51 33·5	·········	53·5	29·82	55·0	+0 59·1	+10 13 12·9
	β Aquilæ	23·0	30·0	23·1	20·1	35·7	17·1	140 4 24·9	·········	53·4	······	······	+1 8·5	+ 6 0 12·1
	(*c*) λ Ursæ Minoris *	20·3	30·1	20·2	17·2	37·0	14·9	57 17 23·4	·········	53·0	29·81	54·2	−0 37·3	+88 48 59·4
	(*n*) Mercury Centre	48·9	57·2	50·8	48·2	63·3	43·8	126 52 52·1	−0·6	58·5	29·85	57·4	+0 42·6	+19 12 11·4
Aug. 8	α Ursæ Majoris	39·3	47·8	40·8	36·9	54·4	33·8	83 27 42·2	·········	61·1	29·86	60·0	−0 6·7	+62 38 9·4
	β Leonis	33·0	39·8	34·7	29·3	46·6	28·8	130 35 35·4	·········	61·9	29·86	60·7	+0 48·3	+15 29 21·2
	(*c*) α Ursæ Minor. S.P.	20·8	30·2	21·7	17·0	34·0	14·9	54 32 23·0	·········	62·9	29·86	60·9	−0 40·5	+88 25 57·6
	α Virginis	52·2	59·7	51·8	50·0	62·1	44·5	156 21 53·3	·········	62·9	······	······	+2 7·7	−10 18 16·1
	α Aurigæ S.P.	30·2	40·0	30·9	28·2	43·9	24·9	11 59 33·0	·········	55·5	29·88	57·6	−4 27·1	+45 49 21·0
	Pallas	37·0	43·0	36·0	32·2	50·4	31·3	133 29 38·3	·········	49·6	29·88	51·2	+0 54·9	+12 35 11·7
	Mars Centre	25·2	31·2	23·8	21·1	37·0	21·1	122 46 26·5	·········	55·2	29·90	55·0	+0 36·9	+23 18 41·5
	α Orionis	16·7	23·0	13·8	13·2	28·7	10·2	138 42 17·6	·········	55·8	······	······	+1 5·1	+ 7 22 22·2
	Venus North L.	19·1	27·0	18·8	16·5	32·4	14·2	132 15 21·3	·········	59·0	29·90	57·6	+0 51·6	+13 49 32·0
	Mercury Centre	63·2	68·0	64·0	60·0	76·2	57·2	127 23 4·8	·········	60·9	29·90	59·4	+0 43·2	+18 41 56·9
Aug. 9	Sun North L.	17·0	23·6	17·6	14·2	29·6	12·8	130 1 19·1	·········	61·2	······	······	+0 47·5	+16 3 38·3
	α Ursæ Majoris	39·0	47·4	41·5	36·5	55·0	32·5	83 27 42·0	·········	63·8	29·90	61·5	−0 6·6	+62 38 9·5
	η Ursæ Majoris *	23·8	34·1	27·9	22·0	41·1	17·2	95 57 27·7	·········	65·5	29·88	61·0	+0 5·7	+50 8 11·5
	51 (Hev.) Ceph. S.P. *	12·0	23·2	11·9	9·8	27·8	3·2	53 22 14·7	−0·1	56·5	······	······	−0 42·9	+87 15 46·8
	(*c*) δ Ursæ Minoris	47·8	58·2	49·9	46·5	63·7	41·0	59 30 51·2	·········	56·3	29·89	57·4	−0 34·0	+86 35 27·7
	λ Ursæ Minoris	19·0	30·1	20·2	17·0	36·1	13·8	57 17 22·6	·········	54·6	29·90	55·4	−0 37·2	+88 48 59·5
	Pallas	67·8	76·2	68·6	63·7	82·5	59·2	133 38 9·7	·········	54·1	29·89	55·0	+0 54·7	+12 26 40·5
	Uranus	24·9	30·7	22·0	21·5	36·8	20·2	157 9 26·0	·········	53·0	29·88	53·9	+2 15·5	−11 5 56·6
	Venus South L.	59·9	67·3	61·0	58·4	73·0	54·9	132 12 2·4	·········	57·0	29·94	57·0	+0 51·8	+13 52 50·7
Aug. 10	Sun South L.	21·9	30·8	23·0	19·2	35·8	18·1	130 50 24·8	·········	59·5	29·94	58·0	+0 49·1	+15 14 31·0

(*a*) At 17h 4m 22s.
(*b*) At 18h 19m 39s.
(*c*) On Meridian.
(*d*) At 20h 29m 42s.

(*c*) 35s after transit.
(*f*) 45s after transit; 1″·3 subtracted from mean of two Microscopes.

(*g*) At 13h 5m 48s.
(*h*) At 18h 19m 35s.
(*i*) 40s after transit.
(*k*) At 2h 51m 54s.

(*l*) 55s after transit.
(*m*) At 7h 50m 25s.
(*n*) At 8h 53m 7s.

Date.	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
Aug. 10	α Ursæ Majoris *	41·1	48·8	42·2	38·0	56·3	34·1	83 27 43·4	....	60·9	29·93	59·0	−0 6·7	+62 38 8·2
	(*a*) γ Ursæ Majoris	11·2	20·8	13·0	9·5	28·0	4·5	91 29 14·5	+ 0·6	61·3	......	......	+0 1·3	+54 36 28·5
	(*b*) α Ursæ Minor. S.P. *	19·2	30·7	20·8	17·3	37·1	15·0	54 32 23·4	....	63·1	29·93	59·8	−0 40·6	+88 25 57·9
	ζ Ursæ Majoris	31·0	41·2	35·0	32·0	49·6	27·5	90 18 36·1	....	63·0	......	......	+0 0·2	+55 47 8·6
	Venus South L.	45·4	50·1	45·2	42·3	57·9	39·2	132 7 46·7	....	64·1	30·02	58·8	+0 51·0	+13 57 7·2
Aug. 11	Sun North L.	34·0	39·9	36·1	31·0	46·1	30·0	130 36 36·1	....	68·0	30·02	62·5	+0 48·0	+15 28 20·8
	(*b*) α Ursæ Minor. S.P. *	18·9	27·8	22·7	16·0	32·3	11·3	54 32 21·6	....	71·8	30·02	65·9	−0 40·0	+88 25 56·7
	ζ Ursæ Majoris	30·8	38·8	36·8	30·0	44·2	25·7	90 18 34·4	....	72·2	......	......	+0 0·2	+55 47 10·3
	β Draconis	58·1	67·1	60·0	57·1	72·0	50·0	93 40 0·7	....	66·5	......	......	+0 3·5	+52 25 40·7
	(*b*) 51 (Hev.) Ceph. S.P.	10·9	21·4	12·5	9·0	24·8	2·7	53 22 13·5	....	65·0	......	......	−0 42·3	+87 15 46·3
	(*c*) δ Ursæ Minoris	45·2	56·8	50·7	44·4	60·9	39·1	59 30 49·5	+ 0·2	64·8	30·02	64·8	−0 33·5	+86 35 28·7
	α Aquilæ	9·5	17·4	10·0	7·8	21·0	0·6	137 38 11·1	....	63·0	30·02	63·5	+1 1·9	+ 8 26 31·9
	α^2 Capricorni	65·8	73·8	65·1	64·0	74·4	58·0	159 6 6·8	....	62·9	30·02	63·4	+2 26·7	−13 2 48·6
	(*b*) λ Ursæ Minoris	18·4	27·6	19·8	15·2	32·2	11·8	57 17 20·8	....	62·5	......	......	−0 36·7	+88 49 0·8
	Pallas	49·2	58·8	52·3	48·0	62·3	42·8	133 55 52·2	....	62·0	30·02	62·7	+0 54·6	+12 8 58·1
	θ Ursæ Major. S.P.	45·3	57·2	47·3	45·8	59·8	39·3	18 33 49·2	....	62·0	......	......	−2 49·3	+52 25 15·0
	Uranus	8·3	14·4	7·0	5·6	17·1	0·1	157 11 8·7	....	61·2	30·02	62·3	+2 13·9	−11 7 37·7
	Venus South L.	21·0	27·5	22·5	17·8	33·4	16·0	132 3 23·1	....	68·0	30·01	64·8	+0 50·5	+14 1 31·3
Aug. 12	(*d*) Sun South L.	10·5	18·0	12·5	8·5	21·2	3·4	131 26 12·3	− 0·2	70·0	30·01	68·4	+0 49·2	+14 38 43·6
	β Draconis	58·0	66·9	59·8	58·0	71·1	51·6	93 40 0·8	....	65·7	......	......	+0 3·5	+52 25 40·6
	(*e*) δ Ursæ Minoris	45·2	57·5	49·8	45·1	62·4	39·2	59 30 49·8	+ 0·3	64·0	29·98	64·2	−0 33·5	+86 35 28·3
	α^2 Capricorni	62·3	72·9	62·1	60·9	73·7	56·0	159 6 4·6	....	61·5	29·99	62·0	+2 27·0	−13 2 46·7
	(*b*) λ Ursæ Minoris	17·2	28·1	18·8	14·6	32·9	11·9	57 17 20·5	....	61·0	......	......	−0 36·8	+88 49 1·2
	Pallas	62.2	71·0	63·9	60·1	75·3	53·7	134 5 4·4	....	61·0	29·98	61·5	+0 54·9	+11 59 45·6
	α Cephei	10·4	21·2	11·3	9·0	25·8	4·0	84 12 13·6	....	58·3	......	......	−0 6·0	+61 53 37·3
	θ Ursæ Major. S.P.	46·7	59·0	47·3	47·0	62·8	40·7	18 33 50·6	....	59·0	......	......	−2 50·1	+52 25 15·6
	α Aquarii	54·0	61·0	54·8	51·0	66·9	47·3	147 10 55·8	....	58·4	......	......	+1 28·2	− 1 6 39·1
	Uranus	56·7	64·0	55·0	54·2	67·1	49·9	157 11 57·8	....	58·5	29·97	60·0	+2 14·5	−11 8 27·4
Aug. 13	Sun North L. *	45·2	53·0	47·9	43·3	59·0	39·3	131 12 47·9	....	61·3	29·86	62·2	+0 49·4	+14 52 7·6
	(*f*) α Ursæ Minor. S.P.	20·9	32·3	22·0	18·8	37·5	16·4	54 32 24·6	− 0·6	61·8	29·80	63·0	−0 40·5	+88 25 58·6
	β Draconis	58·0	67·8	59·0	56·0	74·5	50·5	93 40 1·0	....	56·1	29·75	61·3	+0 3·5	+52 25 40·4
	γ Draconis	49·0	58·8	50·5	49·5	66·0	42·2	94 34 52·7	....	56·1	......	......	+0 4·4	+51 30 47·8
	α Lyræ	10·8	19·9	12·0	9·5	28·5	3·9	107 27 14·0	....	56·2	29·74	60·5	+0 17·8	+38 38 13·1
Aug. 14	β Geminorum	11·6	18·5	11·2	8·1	24·6	6·2	117 40 13·4	....	57·6	......	......	+0 29·7	+28 25 1·8
	Venus North L.	59·4	66·2	59·8	57·5	72·0	53·3	131 49 1·4	....	58·0	29·76	61·5	+0 50·6	+14 15 52·9
Aug. 15	Sun South L.	36·0	42·6	37·0	33·0	49·5	30·0	132 21 38·0	....	60·5	29·77	60·4	+0 51·4	+13 43 15·5
Aug. 16	Sun North L.	54·0	59·9	52·9	50·8	66·8	46·8	132 8 55·2	....	60·2	29·74	59·5	+0 51·0	+13 55 58·7
	(*g*) δ Ursæ Minoris	48·2	57·0	48·5	44·4	64·2	42·2	59 30 50·7	+ 0·1	57·2	29·58	58·3	−0 33·6	+86 35 27·7
	γ Aquilæ	32·2	37·3	31·2	27·9	45·8	27·1	135 51 33·6	....	57·2	29·56	58·0	+0 58·0	+10 13 13·3
	β Aquilæ	23·0	29·2	21·3	18·5	35·9	16·9	140 4 24·1	....	57·1	......	......	+1 7·3	+ 6 0 13·5
	α Aquarii	54·7	61·8	53·2	51·2	67·8	48·8	147 10 56·2	....	57·0	29·53	58·9	+1 27·1	− 1 6 38·4
	Venus South L.	46·3	54·0	46·1	44·0	59·5	41·4	131 40 48·5	....	57·7	29·62	58·9	+0 50·2	+14 24 6·2
Aug. 17	α Herculis	52·1	58·2	52·0	48·9	64·2	46·3	131 29 53·6	....	54·8	29·68	58·4	+0 50·3	+14 35 1·0
	(*h*) β Draconis	57·0	64·8	57·0	54·0	72·5	50·6	93 39 59·3	+ 1·0	54·3	......	......	+0 3·5	+52 25 41·1
	γ Draconis	48·4	55·8	49·0	47·0	64·2	41·3	94 34 51·0	....	54·0	......	......	+0 4·4	+51 30 49·5
	(*b*) δ Ursæ Minoris	48·0	57·2	47·8	44·7	64·8	41·8	59 30 50·7	....	53·5	29·67	55·0	−0 33·9	+86 35 28·1
Aug. 18	ζ Ursæ Majoris	33·3	41·5	34·7	31·5	49·4	28·5	90 18 36·5	....	60·0	29·34	59·5	+0 0·2	+55 47 8·2
	η Ursæ Majoris *	25·6	34·2	26·0	21·8	42·6	20·0	95 57 28·4	....	60·0	......	......	+0 5·7	+50 8 10·8
	(*i*) α Bootis	40·0	45·2	40·8	36·9	55·0	34·8	126 2 42·2	+ 0·1	59·8	29·35	59·4	+0 40·5	+20 2 22·1

(*a*) 48^s after transit.
(*b*) On Meridian.
(*c*) At 18^h 26^m 25^s.
(*d*) At 9^h 29^m 25^s.
(*e*) At 18^h 26^m 30^s.
(*f*) At 13^h 4^m 25^s.
(*g*) At 18^h 26^m 10^s.
(*h*) At Wire V.
(*i*) At Wire IV.

Date.	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
Aug. 18	β Draconis	56·5	64·5	56·9	55·4	72·0	50·5	93 39 59·3	………	56·0	29·45	58·0	+ 0 3·5	+52 25 42·1
	(*a*) 51 (Hev.) Ceph. S.P.	10·3	20·5	9·8	6·0	24·8	2·8	53 22 12·3	………	54·6	……	……	− 0 42·5	+87 15 44·9
	(*b*) δ Ursæ Minoris	44·4	55·0	46·1	41·9	61·8	38·5	59 30 47·9	+ 0·3	54·3	29·50	56·8	− 0 33·7	+86 35 30·4
	Pallas	50·0	58·1	50·0	47·9	66·0	44·5	135 3 52·9	………	51·2	29·57	54·7	+ 0 57·2	+11 0 54·8
	(*c*) θ Ursæ Major. S.P.	45·0	56·0	43·1	43·9	62·0	39·0	18 33 48·2	− 0·3	50·8	29·57	54·2	− 2 50·8	+52 25 12·2
	Uranus	62·0	69·2	59·0	57·9	73·0	55·2	157 17 2·7	………	49·8	29·59	53·4	+ 2 15·9	−11 13 33·7
Aug. 19	η Ursæ Majoris	26·0	34·5	26·1	22·4	41·1	21·5	95 57 28·6	………	57·3	29·64	57·4	+ 0 5·8	+50 8 10·5
	α Bootis *	39·0	45·6	39·6	35·8	52·8	34·1	126 2 41·2	………	56·8	29·64	57·5	+ 0 41·1	+20 2 22·6
Aug. 20	(*d*) α Bootis *	40·0	47·3	40·6	36·8	53·6	35·5	126 2 42·2	+ 0·1	60·9	29·30	59 4	+ 0 40·3	+20 2 22·3
	Moon North L.	31·8	40·0	29·8	30·6	40·8	28·1	170 34 33·5	− 0·6	56·8	29·37	57·5	+ 5 22·1	−24 34 10·1
Aug. 22	(*a*) δ Ursæ Minoris	48·0	56·8	47·8	43·3	63·2	42·0	59 30 50·2	………	42·5	……	……	− 0 34·2	+86 35 29·4
	Moon South L.	21·5	30·0	17·9	20·2	34·0	20·4	174 29 24·0	+ 0·1	42·4	29·18	45·4	+ 8 51·3	−28 32 30·0
	α Cephei	6·8	15·8	2·7	3·2	22·7	2·4	84 12 8·9	………	42·7	……	……	− 0 6·0	+61 53 42·5
	θ Ursæ Major. S.P.	45·7	55·2	41·2	43·2	63·0	41·2	18 33 48·3	………	42·7	29·17	44·8	− 2 51·5	+52 25 11·4
	α Aquarii	51·6	59·2	48·1	48·5	65·9	48·0	147 10 53·5	………	42·5	……	……	+ 1 28·8	− 1 6 36·9
	Uranus	27·4	34·2	22·2	24·2	40·4	25·7	157 20 29·0	………	42·5	29·17	44·5	+ 2 16·5	−11 17 0·1
	α Pegasi	11·5	18·4	7·0	8·8	27·1	9·0	131 45 13·6	………	42·8	……	……	+ 0 51·2	+14 19 40·6
	(*e*) Ceres	20·7	27·6	14·5	15·8	33·6	16·9	164 42 21·5	− 0·3	42·3	29·18	44·5	+ 3 26·4	−18 40 2·2
Aug. 23	Sun South L.	44·5	51·2	42·0	42·3	57·4	39·5	134 58 46·2	………	51·0	29·42	51·5	+ 0 56·8	+11 6 2·4
	Mercury Centre	50·6	58·2	49·3	48·2	64·4	45·0	136 51 52·6	………	52·0	……	……	+ 1 0·5	+ 9 12 52·3
	(*f*) α Ursæ Majoris *	43·8	51·7	42·9	40·8	58·1	38·0	83 27 45·9	+ 0·3	52·5	……	……	− 0 6·7	+62 38 5·9
	(*a*) α Ursæ Minor. S.P.	24·6	34·8	23·6	20·3	40·0	21·8	54 32 27·5	………	53·4	29·48	52·8	− 0 40·8	+88 26 1·3
	γ Draconis	49·2	57·0	48·0	47·5	63·3	43·0	94 34 51·3	………	50·1	29·59	52·5	+ 0 4·5	+51 30 49·6
	(*a*) δ Ursæ Minoris	46·0	56·9	46·8	43·3	62·2	40·0	59 30 49·2	………	49·6	……	……	− 0 34·1	+86 35 30·3
Aug. 24	Sun North L. *	32·9	41·0	30·0	29·8	45·0	28·3	134 47 34·5	………	52·0	29·86	52·6	+ 0 57·1	+11 17 13·8
	α Cygni	30·6	37·1	30·3	27·7	45·1	26·8	101 23 32·9	………	48·2	……	……	+ 0 11·6	+44 42 0·9
	Moon South L.	35·5	44·3	34·2	31·5	47·6	31·7	169 57 37·5	+ 0·7	47·9	29·80	50·0	+ 5 14·1	−23 57 6·9
	α Piscis Australis	35·0	42·8	30·7	32·5	47·8	32·2	176 22 36·8	………	47·4	……	……	+12 19·0	−30 29 10·4
	α Pegasi	11·9	20·0	10·1	10·3	25·0	8·8	131 45 14·3	………	47·4	29·78	49·0	+ 0 51·7	+14 19 39·4
	Ceres	46·6	54·6	45·0	43·0	58·2	41·1	164 55 48·1	………	46·8	29·77	48·7	+ 3 31·5	−18 53 34·2
Aug. 25	(*g*) α Ursæ Minor. S.P.	26·7	36·9	26·2	22·8	42·8	22·5	54 32 29·6	− 2·4	56·9	29·50	54·5	− 0 40·5	+88 26 1·3
	α Pegasi	13·1	20·8	12·7	11·2	25·6	8·8	131 45 15·4	………	52·0	29·43	53·7	+ 0 50·6	+14 19 39·4
Aug. 26	Sun South L.	45·1	53·8	45·1	44·7	58·2	40·2	136 0 47·8	………	53·7	29·44	54·0	+ 0 58·6	+10 3 59·0
	η Ursæ Majoris	28·9	38·0	29·8	27·2	43·7	25·0	95 57 32·1	………	55·6	……	……	+ 0 5·8	+50 8 7·5
Aug. 27	Sun North L.	62·9	71·0	61·8	60·8	76·2	56·6	135 50 4·9	………	54·3	29·51	53·5	+ 0 58·3	+10 14 42·2
	(*a*) α Ursæ Minor. S.P. *	25·5	35·6	25·9	22·0	43·0	22·0	54 32 29·0	………	55·9	29·52	55·4	− 0 40·6	+88 26 3·0
	Uranus	47·2	55·7	45·9	45·2	58·1	42·0	157 24 49·0	………	48·8	29·54	52·5	+ 2 16·8	−11 21 20·4
	(*h*) Ceres	42·7	…·	…·	40·9	54·2	……	165 15 44·4	………	48·9	……	……	+ 3 33·6	−19 13 32·6
	Moon North L. *	55·7	65·2	54·9	55·2	69·2	51·1	152 17 58·5	+ 1·0	49·0	29·52	50·0	+ 1 48·6	− 6 14 2·7
Aug. 28	γ Aquilæ	30·5	35·6	29·0	26·0	42·9	26·8	135 51 31·8	………	47·0	29·57	48·8	+ 0 59·3	+10 13 14·3
	β Aquilæ	21·0	27·2	18·4	16·8	32·9	16·0	140 4 22·1	………	47·0	……	……	+ 1 8·8	+ 6 0 14·5
	α² Capricorni	60·3	69·8	57·0	58·1	71·8	55·2	159 6 2·0	………	46·6	……	……	+ 2 29·7	−13 2 46·3
	Pallas	63·9	72·0	61·3	61·6	78·2	57·7	136 54 5·8	………	46·7	29·58	48·2	+ 1 1·6	+ 9 10 38·0
	(*i*) Venus North L.	7·4	14·2	4·6	4·0	20·3	1·7	130 56 8·7	− 0·5	51·5	29·66	51·9	+ 0 49·6	+15 8 47·6
Aug. 29	Sun South L.	15·7	23·6	14·0	13·0	30·4	11·0	137 4 18·0	………	54·9	29·67	52·8	+ 1 1·1	+ 9 0 26·3
	Mercury Centre	18·0	25·8	17·1	14·9	31·6	14·6	141 27 20·3	………	54·5	29·68	53·3	+ 1 11·4	+ 4 37 13·7
	(*a*) α Ursæ Minor. S.P.	26·2	36·4	27·5	22·7	42·5	23·9	54 32 29·9	………	56·0	29·69	54·0	− 0 40·9	+88 26 3·6

(*a*) On Meridian.
(*b*) At $18^h\ 26^m\ 40^s$.
(*c*) At $21^h\ 22^m\ 15^s$.
(*d*) 25^s before transit.
(*e*) 33^s after transit.
(*f*) At $10^h\ 54^m\ 5^s$.
(*g*) At $13^h\ 8^m\ 10^s$.
(*h*) 1″·5 subtracted from mean of three Microscopes.
(*i*) 1^m before transit.

Date.	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
Aug. 29	α Coronæ borealis	52·2	61·0	52·8	50·0	66·0	45·8	118 48 54·6	....	56·5	29·70	53·8	+ 0 31·2	+27 16 19·6
	α Serpentis	50·0	61·1	51·1	49·1	64·3	43·5	139 7 53·2	....	56·1	......	......	+ 1 5·6	+ 6 56 46·6
	Pallas	43·4	50·2	42·0	40·2	57·2	38·1	137 5 45·2	....	46·5	29·76	50·5	+ 1 2·4	+ 8 58 57·8
	(*a*) Uranus	27·9	35·3	24·4	25·0	39·9	24·5	157 26 29·5	− 0·2	45·8	29·75	47·7	+ 2 18·9	−11 23 2·8
	α Pegasi	9·1	17·5	8·5	7·8	23·9	5·7	131 45 12·1	....	46·0	......	......	+ 0 51·9	+14 19 41·4
	Ceres	31·5	41·0	28·9	29·3	46·4	29·0	165 28 34·4	....	45·5	29·76	47·3	+ 3 40·1	−19 26 29·1
Aug. 31	(*b*) α Ursæ Minor. S.P.	26·9	37·5	29·8	24·4	43·5	22·2	54 32 30·7	− 0·4	60·5	29·42	58·0	− 0 40·1	+88 26 4·8
Sept. 1	Sun North L.	22·5	30·5	22·7	18·8	36·4	17·5	137 37 24·7	....	57·9	29·25	56·8	+ 1 1·0	+ 8 27 19·7
	Mercury Centre	59·8	67·8	60·0	58·4	72·6	54·0	143 44 2·1	....	58·2	29·25	57·6	+ 1 15·7	+ 2 20 27·6
	(*c*) α Ursæ Minor. S.P. *	27·0	36·9	28·0	22·9	43·8	22·2	54 32 30·1	....	58·5	29·26	57·0	− 0 40·0	+88 26 4·7
	α Bootis	41·0	47·6	41·8	37·9	55·0	36·0	126 2 43·2	....	59·2	29·27	57·0	+ 0 40·5	+20 2 21·7
	γ Aquilæ	30·0	36·9	29·0	27·6	43·3	25·8	135 51 32·1	....	50·0	29·30	53·5	+ 0 58·4	+10 13 14·9
	β Aquilæ	21·0	27·9	19·6	17·5	34·0	15·0	140 4 22·5	....	49·8	......	......	+ 1 7·7	+ 6 0 15·2
	(*c*) λ Ursæ Minoris	13·5	23·0	12·0	9·8	28·3	7·6	57 17 15·7	....	49·4	29·32	52·8	− 0 36·9	+88 49 6·6
	(*d*) Uranus	61·1	71·0	60·8	61·1	75·3	57·2	157 29 4·9	− 0·1	48·3	29·32	51·8	+ 2 16·4	−11 25 35·8
	Ceres	26·1	35·0	23·0	23·4	39·8	22·0	165 47 28·2	....	47·6	29·32	50·0	+ 3 40·6	−19 45 23·4
Sept. 2	Sun South L.	60·0	67·2	57·8	58·1	72·1	55·0	138 31 1·7	....	52·5	29·21	52·9	+ 1 3·6	+ 7 33 40·1
	(*c*) α Ursæ Minor. S.P. *	31·6	40·0	30·0	25·8	45·8	27·4	54 32 33·4	− 2·8	53·5	29·21	53·4	− 0 40·4	+88 26 4·8
	η Ursæ Majoris	29·2	37·1	29·2	25·3	44·2	25·1	95 57 31·7	....	54·0	......	......	+ 0 5·7	+50 8 8·0
	α Bootis *	41·3	47·0	40·6	36·2	53·7	36·0	126 2 42·5	....	54·0	29·21	53·9	+ 0 40·8	+20 2 22·1
	β Ursæ Minoris	22·9	31·3	21·2	19·2	39·0	18·4	71 16 25·3	....	52·8	29·21	53·7	− 0 19·3	+74 49 39·4
	(*c*) δ Ursæ Minoris	43·9	54·5	44·5	40·6	61·0	38·2	59 30 47·1	....	48·4	29·22	50·8	− 0 33·8	+86 35 32·1
	(*f*) Moon North L.	33·5	40·5	33·2	28·8	47·2	30·2	121 16 35·6	+ 1·8	45·8	29·34	49·0	+ 0 34·8	+24 48 33·2
	β Orionis	14·4	23·1	11·8	12·2	25·9	10·1	154 27 16·2	....	46·5	29·35	49·0	+ 1 59·2	− 8 23 30·0
	β Tauri	26·1	32·6	24·0	24·0	39·8	22·8	117 37 28·2	....	46·5	......	......	+ 0 30·0	+28 27 47·2
	Mars Centre	53·2	62·0	53·0	50·0	68·5	47·2	122 30 55·6	....	49·5	29·37	49·9	+ 0 36·3	+23 34 13·5
Sept. 5	Sun North L.	39·9	47·5	39·2	36·2	52·9	34·2	139 5 41·6	....	52·8	28·90	51·6	+ 1 4·2	+ 6 58 59·6
	(*g*) β Cephei	14·5	23·5	13·4	11·0	31·7	10·0	76 15 17·3	+ 0·2	48·9	29·00	51·4	− 0 14·0	+69 50 41·9
	α Aquarii	53·0	60·2	51·7	50·2	66·1	47·0	147 10 54·7	....	48·9	......	......	+ 1 27·0	− 1 6 36·3
	(*h*) α Pegasi	11·5	19·5	11·1	9·4	25·5	6·9	131 45 14·0	+ 0·1	49·5	28·98	51·3	+ 0 50·1	+14 19 41·2
Sept. 6	(*c*) α Ursæ Minor. S.P.	28·9	38·0	27·6	24·9	44·0	26·0	54 32 31·6	....	53·0	28·95	52·9	− 0 40·1	+88 26 6·1
	α Bootis *	42·5	49·3	42·8	39·0	56·5	36·9	126 2 44·5	....	52·9	28·95	53·0	+ 0 40·6	+20 2 20·3
	(*i*) δ Ursæ Minoris	43·4	53·5	43·8	40·0	60·5	37·1	59 30 46·3	+ 1·4	48·8	29·04	51·6	− 0 33·6	+86 35 31·3
	(*a*) γ Aquilæ	30·1	36·8	29·9	27·1	44·2	25·9	135 51 32·3	+ 0·2	48·0	29·07	51·5	+ 0 58·2	+10 13 14·7
	β Cephei	14·0	23·7	13·8	11·0	31·0	9·0	76 15 17·1	....	48·0	29·10	51·4	− 0 14·1	+69 50 42·4
	(*k*) Uranus	13·5	22·0	11·3	12·2	27·0	9·0	157 33 15·8	− 0·4	47·4	29·11	50·0	+ 2 16·1	−11 29 46·1
Sept. 8	(*l*) Sun South L.	52·0	58·1	51·0	49·1	63·3	44·2	140 44 53·0	− 0·8	55·8	29·27	53·0	+ 1 8·5	+ 5 19 45·3
	α Ursæ Majoris *	49·6	58·5	48·5	47·5	64·3	43·5	83 27 52·0	....	51·8	......	......	− 0 6·7	+62 38 0·7
Sept. 12	Sun North L.	10·9	18·8	10·1	8·9	24·2	5·6	141 44 13·1	....	51·9	29·94	51·2	+ 1 13·1	+ 4 20 19·8
Sept. 13	(*m*) α Ursæ Minor. S.P.	36·7	46·0	36·3	33·5	53·4	32·0	54 32 39·7	− 3·6	53·3	30·00	52·0	− 0 41·5	+88 26 8·6
	α Cephei *	61·0	70·6	59·2	59·2	77·6	56·2	84 12 4·0	....	48·1	......	......	− 0 6·1	+61 53 48·1
	θ Ursæ Major. S.P.	45·2	56·3	44·0	44·0	62·9	39·1	18 33 48·6	....	48·0	30·05	50·6	− 2 54·6	+52 25 8·0
	α Aquarii	50·1	57·0	49·2	47·6	63·2	44·8	147 10 52·0	....	47·7	......	......	+ 1 30·4	− 1 6 36·4
	Uranus	45·9	53·4	44·2	45·0	58·1	41·1	157 38 48·0	....	47·6	30·05	50·1	+ 2 21·1	−11 35 23·1
	α Piscis Australis	23·0	31·9	19·0	22·1	34·0	20·9	176 22 25·3	....	47·2	......	......	+12 25·7	−30 29 5·0
	α Pegasi	8·4	16·5	6·9	7·0	22·3	3·2	131 45 10·7	....	47·5	......	......	+ 0 52·2	+14 19 43·1
	Ceres	22·1	30·2	19·5	20·0	34·2	18·1	166 52 24·0	....	47·6	30·04	49·9	+ 4 4·5	−20 50 42·5
Sept. 14	(*c*) α Ursæ Minor. S.P. *	31·9	42·8	33·4	28·8	48·7	28·5	54 32 35·7	....	52·6	30·05	52·2	− 0 41·6	+88 26 8·1

(*a*) At Wire V.
(*b*) At 12^{h} 59^{m} 0^{s}.
(*c*) On Meridian.
(*d*) 30^{s} after transit.
(*e*) At 13^{h} 9^{m} 12^{s}.
(*f*) At 4^{h} 48^{m} 16^{s}.
(*g*) At 21^{h} 27^{m} 40^{s}.
(*h*) At Wire IV.
(*i*) At 18^{h} 29^{m} 6^{s}.
(*k*) At 22^{h} 18^{m} 55^{s}.
(*l*) At 11^{h} 9^{m} 24^{s}.
(*m*) At 13^{h} 10^{m} 30^{s}.

Date.	OBJECT OBSERVED.	Microscope. I.	II.	III.	IV.	V.	VI.	Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
Sept. 14	(a) ζ Ursæ Majoris	40·2	49·0	41·5	40·0	56·4	35·9	90 18 43·8	+ 0·9	53·0	……	……	+ 0 0·2	+55 47 1·1
	α Bootis	41·2	48·5	42·5	39·2	57·7	36·2	126 2 44·2	………	52·4	30·05	52·2	+ 0 42·1	+20 2 19·7
Sept. 15	(b) δ Ursæ Minoris	43·9	54·7	44·0	41·0	60·8	38·0	59 30 47·1	+ 0·6	50·5	30·02	51·9	− 0 34·6	+86 35 32·9
	α Pegasi	7·8	15·8	7·9	7·0	22·9	2·0	131 45 10·6	………	49·9	30·02	51·4	+ 0 51·9	+14 19 43·5
	(c) Ceres	12·9	20·1	9·8	10·1	24·0	5·0	167 1 13·6	− 0·5	49·0	30·02	51·3	+ 4 6·3	−20 59 33·4
Sept. 16	α Bootis	41·0	47·0	41·8	39·1	56·0	36·2	126 2 43·5	………	51·8	30·01	51·8	+ 0 42·1	+20 2 20·4
	β Ursæ Minoris	26·6	34·9	25·0	23·9	41·8	22·2	71 16 29·1	………	51·8	……	……	− 0 19·9	+74 49 36·8
	α Aquilæ	6·6	15·0	3·5	4·4	20·0	0·1	137 38 8·3	………	49·0	30·02	50·5	+ 1 3·8	+ 8 26 33·9
	(d) λ Ursæ Minoris *	8·5	19·0	7·8	7·0	25·8	3·0	57 17 11·8	………	49·0	……	……	− 0 37·8	+88 49 12·0
Sept. 17	Sun South L.	35·2	41·9	33·8	33·8	47·6	32·0	144 11 37·4	………	52·0	29·99	51·7	+ 1 20·0	+ 1 52 48·6
	α Ophiuchi	39·1	47·0	38·9	37·1	53·0	34·9	133 23 41·7	………	49·5	29·97	50·9	+ 0 54·9	+12 41 9·4
	β Aquilæ	18·8	25·8	16·8	16·2	32·0	13·3	140 4 20·5	………	49·0	29·96	50·8	+ 1 9·4	+ 6 0 16·1
	α² Capricorni	59·9	68·5	56·8	58·2	70·2	55·0	159 6 1·4	………	48·6	……	……	+ 2 31·0	−13 2 46·4
	Pallas	65·1	73·0	63·2	63·7	77·2	59·9	140 56 7·0	………	48·0	29·96	50·5	+ 1 11·7	+ 5 8 27·3
	Uranus	48·8	57·1	46·3	48·0	60·4	43·7	157 41 50·7	………	47·0	29·95	50·0	+ 2 21·2	−11 38 25·9
	α Piscis Australis *	38·7	46·5	34·1	37·9	49·6	35·5	176 22 40·4	………	46·7	29·95	49·9	+12 24·7	−30 29 19·1
	Ceres	9·9	18·0	6·0	8·0	21·5	3·2	167 9 11·1	………	46·6	29·94	49·5	+ 4 9·4	−21 7 34·5
Sept. 19	Moon South L.	36·4	43·5	34·6	35·3	48·6	32·9	174 3 38·6	+ 0·3	46·2	29·68	49·4	+ 8 23·2	−28 6 16·1
	γ Aquilæ	27·2	33·3	24·6	25·0	39·2	23·5	135 51 28·8	………	46·2	……	……	+ 0 59·7	+10 13 17·5
	β Aquilæ	18·9	26·1	16·2	15·3	30·9	13·9	140 4 20·2	………	46·1	……	……	+ 1 9·2	+ 6 0 16·6
Sept. 20	γ Aquilæ	27·1	33·1	25·4	23·2	39·7	23·5	135 51 28·7	………	41·1	29·71	46·3	+ 1 0·4	+10 13 16·9
	β Aquilæ	17·7	25·0	14·9	14·4	30·6	13·3	140 4 19·3	………	41·0	……	……	+ 1 10·0	+ 6 0 16·7
	(e) α² Capricorni	60·7	68·9	57·3	58·9	70·8	56·0	159 6 2·1	− 0·2	40·9	29·71	45·9	+ 2 32·2	−13 2 48·1
	Moon South L.	62·0	69·1	56·1	59·7	71·0	57·0	171 34 2·5	+ 0·6	40·6	……	……	+ 6 14·6	−25 34 31·7
	Uranus	61·6	69·8	57·1	60·0	72·9	57·0	157 44 3·1	………	40·5	29·74	43·9	+ 2 22·5	−11 40 39·6
	α Piscis Australis	27·9	35·0	20·8	25·8	38·0	26·0	176 22 28·9	………	40·0	29·74	42·9	+12 31·9	−30 29 14·8
	Ceres	48·5	56·0	43·0	46·0	57·6	43·2	167 19 49·1	………	39·5	29·74	42·5	+ 4 15·4	−21 18 18·5
Sept. 21	α Cephei	59·7	68·5	56·6	56·9	73·0	55·0	84 12 1·6	………	43·7	29·82	46·0	− 0 6·1	+61 53 50·9
	Moon South L.	16·2	23·5	11·6	13·2	25·3	11·2	167 25 16·8	+ 0·8	43·1	……	……	+ 4 15·8	−21 23 47·4
	α Aquarii	50·0	56·8	47·0	47·8	60·9	46·0	147 10 51·4	………	43·0	29·82	44·8	+ 1 30·7	− 1 6 36·1
	Uranus	43·0	51·0	40·4	41·8	54·2	39·8	157 44 45·0	………	43·0	……	……	+ 2 22·2	−11 41 21·2
	α Piscis Australis	28·5	35·7	22·5	26·4	38·5	26·1	176 22 29·6	………	42·5	……	……	+12 29·1	−30 29 12·7
	α Pegasi	6·9	14·2	4·8	5·2	19·2	3·1	131 45 8·9	………	42·3	……	……	+ 0 52·4	+14 19 44·7
	Ceres	59·2	68·0	55·5	57·2	70·2	54·8	167 23 0·8	………	41·9	29·82	43·8	+ 4 15·7	−21 21 30·5
Sept. 24	α Cephei	57·9	67·4	58·0	56·9	72·8	51·0	84 12 0·6	………	53·0	29·49	53·1	− 0 5·9	+61 53 51·3
	β Cephei	7·2	19·5	9·1	7·0	25·6	1·6	76 15 11·7	………	53·0	……	……	− 0 14·1	+69 50 48·4
	α Aquarii	51·8	59·8	52·0	50·0	64·5	45·1	147 10 53·9	………	52·8	……	……	+ 1 27·8	− 1 6 35·7
	Uranus	52·5	61·1	51·9	51·7	64·0	46·5	157 46 54·6	………	52·8	29·50	53·2	+ 2 17·9	−11 43 26·5
	α Ursæ Major. S.P.	21·2	33·6	20·8	21·0	38·6	17·0	28 45 25·4	………	52·8	29·51	53·0	− 1 44·3	+62 37 55·1
	Ceres	34·5	41·8	33·3	32·8	44·1	29·5	167 31 36·0	………	52·8	……	……	+ 4 9·8	−21 29 59·8
	(f) Moon South L.	60·1	66·6	58·0	59·2	72·1	53·9	149 19 1·7	+ 5·0	52·7	29·52	53·0	+ 1 35·5	− 3 14 56·2
	δ Piscium	49·9	59·1	50·7	49·7	63·8	43·0	139 22 52·7	………	53·0	29·51	53·0	+ 1 6·1	+ 6 41 47·2
Sept. 26	α Aquarii	54·6	61·4	54·9	52·5	66·8	48·0	147 10 56·4	………	57·8	29·40	55·5	+ 1 26·6	− 1 6 37·0
Sept. 28	(g) Sun North L.	38·2	44·0	37·0	35·2	48·8	33·0	147 56 39·4	− 0·2	55·9	29·07	54·0	+ 1 28·5	− 1 52 21·7
	α Cygni	22·5	30·5	22·1	20·9	38·9	19·0	101 23 25·7	………	49·5	28·99	50·7	+ 0 11·2	+44 42 9·1
	α Cephei	58·3	66·8	56·5	55·4	73·0	51·8	84 12 0·3	………	49·0	……	……	− 0 5·9	+61 53 51·6
	(h) β Cephei	5·9	17·1	6·8	4·2	24·2	1·8	76 15 10·0	+ 0·2	49·0	28·99	49·9	− 0 14·0	+69 50 49·8

(a) 1^{m} after transit.
(b) At $18^{\mathrm{h}}\ 28^{\mathrm{m}}\ 0^{\mathrm{s}}$.
(c) 1^{m} before transit.

(d) On Meridian.
(e) At Wire V.
(f) At $0^{\mathrm{h}}\ 14^{\mathrm{m}}\ 10^{\mathrm{s}}$.

(g) 15^{s} after transit.
(h) At $21^{\mathrm{h}}\ 28^{\mathrm{m}}\ 0^{\mathrm{s}}$.

Date.	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
Sept. 29	(*a*) α Ursæ Minor. S.P. *	42·3	51·0	41·5	38·0	56·5	37·0	54 32 44·4	− 3·3	53·5	28·97	52·7	− 0 40·1	+88 26 15·0
Sept. 30	Sun South L.	13·2	20·0	10·1	11·0	25·4	9·4	149 15 14·8	………	47·9	29·07	48·2	+ 1 34·8	− 3 11 3·6
	(*b*) α Ursæ Minor. S.P.	41·6	50·5	39·7	37·5	57·5	37·6	54 32 44·1	− 2·3	48·1	29·07	48·4	− 0 40·7	+88 26 15·1
	β Ursæ Minoris	31·0	38·5	28·9	26·8	47·1	26·2	71 16 33·1	………	49·7	29·07	49·4	− 0 19·4	+74 49 32·3
	α² Capricorni	64·0	72·0	59·7	61·8	74·0	58·9	159 6 5·1	………	42·5	29·06	45·8	+ 2 28·4	−13 2 47·5
	(*c*) Pallas	51·0	59·3	49·0	48·5	64·3	47·2	143 28 53·2	………	42·0	……	……	+ 1 17·2	+ 2 35 35·6
	β Cephei	7·9	17·0	4·3	5·1	23·2	4·0	76 15 10·2	………	41·0	29·04	43·1	− 0 14·3	+69 50 50·1
	Uranus	39·5	46·5	37·0	38·6	52·8	37·0	157 50 41·9	………	40·7	29·04	42·5	+ 2 19·8	−11 47 15·7
	α Piscis Australis *	43·9	50·9	37·2	42·0	54·8	40·8	176 22 44·9	………	40·4	……	……	+12 14·1	−30 29 13·0
	Ceres	48·1	55·9	45·1	46·8	61·5	44·1	167 42 50·3	………	40·0	29·04	41·9	+ 4 16·6	−21 41 20·9
Oct. 2	Moon South L.	54·3	60·8	52·2	51·2	68·0	48·1	119 32 55·8	− 0·2	42·9	28·54	44·8	+ 0 31·8	+26 32 18·6
	α Geminor. following	55·2	61·8	51·7	51·8	68·0	50·0	113 50 56·4	………	42·9	……	……	+ 0 24·8	+32 14 24·8
	α Canis Minoris	6·8	13·9	3·2	3·6	17·9	0·0	140 26 7·6	………	……	……	……	+ 1 7·8	+ 5 38 30·6
	β Geminorum	17·8	24·9	15·6	16·0	31·8	14·2	117 40 20·0	………	43·0	……	……	+ 0 29·4	+28 24 56·6
	Mars Centre	13·2	20·7	11·9	11·8	27·2	9·1	124 19 15·7	………	43·6	28·55	44·9	+ 0 38·3	+21 45 52·0
	Jupiter South L.	32·0	38·9	29·8	28·8	46·0	29·3	128 33 34·1	………	45·9	28·56	46·1	+ 0 44·5	+17 31 27·4
Oct. 3	(*d*) α Ursæ Minor. S.P.	39·8	49·0	38·0	36·8	56·1	35·0	54 32 42·5	………	49·2	28·61	48·1	− 0 39·9	+88 26 16·6
Oct. 4	Sun North L.	16·0	22·5	12·5	14·0	25·0	11·2	150 16 16·9	………	52·0	29·01	49·8	+ 1 37·7	− 4 12 8·6
	(*e*) α Ursæ Minor. S.P.	43·2	52·2	42·5	39·8	59·6	38·1	54 32 45·9	− 2·9	50·6	……	……	− 0 40·4	+88 26 16·6
	(*f*) β Ursæ Minoris	32·0	40·8	30·6	28·9	46·7	27·6	71 16 34·5	+ 0·4	51·7	29·05	51·0	− 0 19·3	+74 49 30·4
	α Coronæ borealis	57·5	65·4	56·9	56·0	69·8	50·6	118 48 59·4	………	51·7	29·05	50·9	+ 0 30·8	+27 16 15·8
	β Cephei	6·0	16·6	5·3	5·0	21·8	1·1	76 15 9·3	………	46·0	29·16	47·4	− 0 14·2	+69 50 50·9
	Uranus	62·8	71·9	61·0	63·0	75·2	57·4	157 53 5·2	………	45·0	29·17	46·7	+ 2 19·4	−11 49 38·6
	(*g*) Moon South L.	56·0	64·4	56·0	55·0	70·5	50·4	124 7 58·7	………	42·9	……	……	+ 0 39·1	+21 57 8·2
	Jupiter North L.	6·9	14·3	5·2	3·9	21·8	1·0	128 38 8·8	………	43·1	29·33	45·8	+ 0 46·1	+17 26 51·1
	(*h*) α Hydræ	45·8	53·0	43·8	45·0	56·5	42·2	154 0 47·7	− 0·1	44·0	……	……	+ 1 57·4	− 7 56 59·0
	Venus South L.	45·7	54·4	44·0	44·4	58·8	41·0	134 14 48·0	………	45·8	……	……	+ 0 55·8	+11 50 2·2
	α Leonis	53·0	61·7	52·1	52·5	66·1	49·1	133 18 55·7	………	46·1	29·34	45·8	+ 0 54·0	+12 45 56·3
Oct. 5	(*i*) α Cygni	22·8	30·0	21·8	20·8	38·5	19·0	101 23 25·4	+ 0·2	47·0	29·45	47·8	+ 0 11·5	+44 42 8·9
	α Cephei *	56·1	64·8	53·9	54·5	71·2	50·4	84 11 58·4	………	46·8	……	……	− 0 6·0	+61 53 53·6
	(*h*) β Cephei	6·5	16·8	5·9	5·3	23·0	1·5	76 15 9·8	+ 0·2	46·7	29·46	47·7	− 0 14·3	+69 50 50·3
	Venus North L.	33·3	42·0	32·3	30·1	48·6	29·9	134 28 36·0	………	47·7	29·45	48·0	+ 0 56·3	+11 36 13·7
Oct. 6	Sun South L.	28·0	36·0	27·0	27·2	41·4	24·0	151 34 30·6	………	52·4	29·42	49·0	+ 1 44·3	− 5 30 28·9
	(*k*) α Ursæ Minor. S.P. *	40·9	51·0	40·2	39·0	56·2	37·0	54 32 44·1	− 0·7	51·8	……	……	− 0 40·8	+88 26 16·6
Oct. 7	Sun North L.	29·1	35·4	28·0	28·8	40·0	24·8	151 25 31·0	………	56·0	29·07	51·3	+ 1 41·6	− 5 21 26·6
	(*l*) α Ursæ Minor. S.P. *	40·0	50·5	41·8	37·9	55·3	35·0	54 32 43·5	0·0	56·2	……	……	− 0 40·0	+88 26 17·5
Oct. 8	(*m*) Sun South L.	29·7	35·9	27·8	28·7	41·3	25·2	152 20 31·4	− 1·5	58·0	28·93	52·0	+ 1 44·7	− 6 16 28·6
	(*n*) α Ursæ Minor. S.P.	42·4	52·7	42·0	39·8	59·3	36·3	54 32 45·5	− 1·7	57·8	……	……	− 0 39·7	+88 26 18·1
	α Bootis	45·8	53·8	47·3	45·0	61·8	40·5	126 2 49·0	………	58·3	……	……	+ 0 40·1	+20 2 16·9
	α Cephei	55·2	65·5	55·3	54·3	69·9	49·0	84 11 58·2	………	49·8	28·97	50·8	− 0 5·9	+61 53 53·7
	β Cephei	5·8	16·2	6·0	5·0	22·4	0·0	76 15 9·2	………	49·5	……	……	− 0 14·0	+69 50 50·8
Oct. 14	(*o*) α Ursæ Minor. S.P.	45·4	55·0	45·0	42·9	61·8	40·0	54 32 48·3	− 1·0	49·8	29·56	49·1	− 0 41·2	+88 26 20·1
Oct. 15	(*p*) Sun North L.	21·7	30·4	19·5	20·4	33·3	18·2	154 26 24·0	− 0·5	50·3	……	……	+ 1 59·0	− 8 22 36·5
	Uranus *	14·9	23·0	12·9	13·3	25·8	9·3	157 58 16·6	………	50·9	29·45	49·8	+ 2 19·5	−11 54 50·1
Oct. 16	(*q*) α Ursæ Minor. S.P. *	45·0	55·9	45·1	43·4	60·2	39·6	54 32 48·3	− 0·1	51·0	29·79	49·7	− 0 41·4	+88 26 20·8

(*a*) At $12^{h}\ 54^{m}\ 40^{s}$.
(*b*) At $13^{h}\ 9^{m}\ 10^{s}$.
(*c*) Extremely faint.
(*d*) On Meridian.

(*e*) At $13^{h}\ 10^{m}\ 0^{s}$.
(*f*) At $14^{h}\ 53^{m}\ 0^{s}$.
(*g*) Faint; on Meridian.
(*h*) 35^{s} after transit.

(*i*) 25^{s} before transit.
(*k*) At $12^{h}\ 59^{m}\ 10^{s}$.
(*l*) At $13^{h}\ 2^{m}\ 20^{s}$.
(*m*) At $12^{h}\ 58^{m}\ 15^{s}$.

(*n*) At $13^{h}\ 8^{m}\ 15^{s}$.
(*o*) At $12^{h}\ 58^{m}\ 15^{s}$.
(*p*) 27^{s} after transit.
(*q*) At $13^{h}\ 4^{m}\ 0^{s}$.

Date	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
Oct. 17	Sun South L. .... *	34·8	44·1	33·9	32·0	48·5	30·0	155 42 37·3	....	52·8	......	......	+ 2 6·3	− 9 38 57·6
	β Ursæ Minoris	36·0	44·9	35·2	34·0	51·8	31·1	71 16 38·9	....	52·1	29·78	50·9	− 0 19·7	+74 49 26·8
	(*a*) Moon South L.	55·1	63·0	52·1	54·5	66·8	50·2	172 38 56·9	− 2·9	51·0	29·75	51·2	+ 6 54·6	−26 40 2·6
	Uranus	57·0	66·1	57·7	58·0	71·2	50·9	157 59 0·1	....	49·9	29·73	50·8	+ 2 21·3	−11 55 35·4
	(*b*) α Pegasi	5·8	13·0	5·0	5·0	19·0	0·2	131 45 8·0	+ 0·1	50·0	......	......	+ 0 51·4	+14 19 46·5
	α Andromedæ	46·1	54·8	46·2	47·3	61·0	40·2	117 53 49·2	....	50·0	29·71	50·9	+ 0 30·4	+28 11 26·4
	(*c*) α Ursæ Minoris	60·0	69·8	59·0	56·7	74·9	52·0	57 40 2·1	+ 0·2	50·0	29·69	50·8	− 0 36·8	+88 26 20·5
Oct. 18	(*d*) Ceres	23·0	31·9	21·2	22·2	35·4	19·4	167 33 25·5	− 0·3	50·0	29·61	51·7	+ 4 12·6	−21 31 51·8
	γ Ursæ Major. S.P. ...	22·9	33·3	21·2	21·5	40·2	17·2	20 44 26·0	....	49·9	......	......	− 2 32·2	+54 36 7·8
	α Cassiopeæ	9·2	17·2	9·8	7·2	23·4	2·2	90 27 11·5	....	48·9	......	......	+ 0 0·3	+55 38 34·2
	(*e*) α Ursæ Minoris	58·9	67·9	58·1	56·0	74·5	51·1	57 40 1·1	+ 0·3	48·1	29·62	50·0	− 0 36·8	+88 26 21·4
	(*f*) α Ursæ Minor. S.P. ...	46·7	57·2	46·5	44·7	62·4	40·8	54 32 49·7	− 0·1	51·6	29·78	51·4	− 0 41·4	+88 26 22·2
Oct. 19	Sun North L.	58·9	67·5	56·9	59·0	71·0	53·2	155 54 1·1	....	52·0	29·79	51·9	+ 2 7·6	− 9 50 22·7
	α Bootis	48·0	55·3	47·7	47·1	61·5	42·0	126 2 50·2	....	52·0	......	......	+ 0 41·8	+20 2 14·0
	α Ophiuchi	39·8	46·5	39·5	37·2	53·8	35·0	133 23 41·9	....	51·0	29·85	51·9	+ 0 54·5	+12 41 9·6
	γ Draconis	48·5	56·5	49·2	48·9	62·1	42·8	94 34 51·3	....	50·8	......	......	+ 0 4·5	+51 30 50·2
	(*g*) δ Ursæ Minoris	44·1	54·4	45·2	41·0	60·8	38·3	59 30 47·3	....	50·4	29·87	51·5	− 0 34·4	+86 35 33·1
	Moon South L.	65·0	73·9	63·8	63·8	76·7	59·4	164 6 7·1	+ 0·9	48·0	29·97	48·9	+ 3 21·1	−18 3 43·1
	α Ursæ Major. S.P. ...	16·8	28·8	14·8	15·5	33·5	12·8	28 45 20·4	....	48·0	......	......	− 1 47·1	+62 37 47·3
	(*d*) γ Ursæ Major. S.P. ...	25·7	36·4	23·7	24·8	42·1	22·1	20 44 29·1	− 0·9	48·2	30·01	49·4	− 2 34·8	+54 36 7·4
	(*e*) α Ursæ Minoris	58·0	68·1	57·5	54·9	73·8	50·9	57 40 0·5	+ 0·3	47·9	30·02	49·3	− 0 37·4	+88 26 22·6
Oct. 20	Sun North L.	33·5	39·9	31·4	31·0	45·2	28·8	156 15 35·0	....	48·7	30·10	49·8	+ 2 12·0	−10 12 1·0
	γ Draconis	49·8	57·8	49·3	49·0	63·4	43·5	94 34 52·1	....	48·8	......	......	+ 0 4·6	+51 30 49·3
	(*g*) δ Ursæ Minoris	44·1	54·2	44·8	42·0	60·8	38·1	59 30 47·3	....	47·9	30·02	50·0	− 0 34·8	+86 35 33·5
Oct. 21	β Cephei	62·7	74·2	63·9	62·0	80·0	56·8	76 15 6·6	....	51·0	29·93	51·0	− 0 14·4	+69 50 53·8
	(*h*) Moon South L.	47·0	55·7	47·5	46·3	62·2	41·3	151 57 50·0	+ 6·2	51·0	......	......	+ 1 48·2	− 5 53 58·4
	α Andromedæ	43·5	50·0	42·9	43·1	57·3	38·0	117 53 45·8	....	51·0	29·95	51·3	+ 0 30·6	+28 11 29·6
	α Cassiopeæ	8·0	16·2	8·0	7·0	21·8	2·0	90 27 10·5	....	50·8	......	......	+ 0 0·3	+55 38 35·2
	(*g*) α Ursæ Minoris	57·1	67·0	57·8	54·1	73·0	49·5	57 39 59·8	....	50·9	29·95	51·0	− 0 37·0	+88 26 23·2
Oct. 22	(*a*) γ Ursæ Major. S.P. ...	26·5	36·8	25·2	24·1	43·1	21·0	20 44 29·4	− 0·2	46·4	30·07	48·5	− 2 35·7	+54 36 7·5
	(*g*) α Ursæ Minoris	57·9	67·2	56·4	54·2	73·5	50·9	57 40 0·0	....	46·0	30·05	47·2	− 0 37·5	+88 26 23·5
Oct. 23	(*i*) α Ursæ Minor. S.P. ...	51·6	60·8	51·1	48·0	68·0	44·0	54 32 53·9	− 2·3	54·5	29·94	51·5	− 0 41·3	+88 26 24·3
Oct. 24	α Ophiuchi	40·9	48·0	40·8	40·0	54·5	35·5	133 23 43·2	....	54·2	29·88	53·8	+ 0 54·2	+12 41 8·6
	(*g*) δ Ursæ Minoris	44·8	54·1	47·0	43·0	61·1	37·9	59 30 48·0	....	53·0	29·88	53·3	− 0 34·2	+86 35 32·2
	α Arietis	45·5	52·5	46·5	43·8	60·0	40·0	123 23 48·0	....	50·0	......	......	+ 0 38·1	+22 41 19·9
	(*k*) ξ¹ Ceti	53·2	61·0	53·7	50·8	67·0	46·0	137 59 55·3	+ 0·1	50·0	29·81	50·8	+ 1 4·1	+ 8 4 46·5
	(*l*) Moon South L.	23·4	30·5	22·0	20·0	35·5	18·0	133 22 25·0	+ 0·9	50·0	......	......	+ 0 54·5	+12 42 25·6
	(*m*) α Ursæ Minor. S.P. ...	49·1	60·4	49·2	47·4	65·5	42·9	54 32 52·4	− 0·5	49·0	29·85	50·1	− 0 41·7	+88 26 21·2
Oct. 25	Sun North L.	49·6	57·9	48·5	49·8	61·2	44·1	158 0 51·9	....	49·9	......	......	+ 2 22·0	−11 57 27·9
	(*a*) α Bootis	49·0	56·0	48·9	49·0	63·5	43·5	126 2 51·6	+ 0·1	50·0	29·84	50·2	+ 0 42·1	+20 2 12·2
	β Ursæ Minoris	39·6	48·9	38·8	37·8	55·3	34·0	71 16 42·4	....	50·0	......	......	− 0 19·8	+74 49 23·4
	β Cephei	63·0	73·0	62·2	61·1	78·9	57·5	76 15 6·0	....	47·5	29·76	50·1	− 0 14·4	+69 50 54·4
	(*n*) Uranus	21·1	28·0	18·4	19·8	32·3	17·0	158 1 22·8	− 0·1	46·7	29·76	48·0	+ 2 22·7	−11 57 59·4
	(*d*) α Piscis Australis .. *	43·0	51·6	39·2	42·9	55·5	40·0	176 22 45·4	− 0·5	46·9	29·74	47·8	+12 19·6	−30 29 18·5
	Ceres	15·5	23·9	11·5	13·8	26·8	9·8	167 13 16·8	....	46·8	......	......	+ 4 9·0	−21 11 39·8
	γ Ursæ Majoris S. P.	25·8	35·9	22·1	23·5	41·1	21·0	20 44 28·2	....	46·5	29·74	47·5	− 2 34·0	+54 36 8·2
	(*g*) α Ursæ Minoris	55·2	65·1	54·4	52·0	72·0	48·4	57 39 57·8	....	46·6	29·72	47·3	− 0 37·1	+88 26 25·3
	ζ Ursæ Major. S.P.	53·9	66·2	53·0	54·8	70·4	48·0	21 54 57·7	....	46·6	......	......	− 2 24·9	+55 46 46·8
	ξ¹ Arietis .... *	32·0	38·4	30·2	29·8	45·9	27·6	136 12 34·0	....	48·0	29·70	48·5	+ 1 0·2	+ 9 52 11·8

(*a*) At Wire IV.
(*b*) 24^s after transit.
(*c*) At $1^h\ 0^m\ 35^s$.
(*d*) At Wire V.
(*e*) At $1^h\ 0^m\ 0^s$.
(*f*) At $13^h\ 1^m\ 8^s$.
(*g*) On Meridian.
(*h*) At $23^h\ 54^m\ 8^s$.
(*i*) At $13^h\ 9^m\ 5^s$.
(*k*) 30^s after transit.
(*l*) 0″·1 to be subtracted from apparent Declination observed for defect of illumination of South Limb.
(*m*) At $12^h\ 59^m\ 20^s$.
(*n*) 36^s after transit.

Date.	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		"	"	"	"	"	"	° ′ "	"	°	In.	°	′ "	° ′ "
Oct. 25	ε Arietis	58·1	65·0	57·9	57·0	71·0	51·3	125 24 0·0	………	48·1	……	……	+ 0 41·0	+20 41 5·0
	Moon North L.	37·1	45·8	38·8	35·3	53·5	33·9	127 44 40·7	+ 0·7	49·0	29·66	49·3	+ 0 44·6	+18 20 20·0
Oct. 26	(a) α Ursæ Minoris	53·7	64·5	54·8	51·5	71·0	47·1	57 39 57·1	………	50·2	29·12	50·8	− 0 36·1	+88 26 25·0
	ζ Ursæ Major. S. P.	51·9	62·0	50·8	50·7	66·5	44·7	21 54 54·4	………	50·3	29·12	50·9	− 2 20·9	+55 46 47·5
	(a) α Ursæ Minor. S. P.	51·8	61·2	49·5	48·1	67·1	44·9	54 32 53·7	………	38·1	29·33	42·9	− 0 41·9	+88 26 25·8
	ζ Ursæ Majoris	56·6	65·5	54·9	55·1	71·2	52·0	90 18 59·2	………	38·2	……	……	+ 0 0·2	+55 46 46·6
	η Ursæ Majoris	46·9	54·9	44·8	46·8	62·4	43·2	95 57 49·8	………	38·7	……	……	+ 0 6·0	+50 7 50·2
Oct. 27	(b) Sun South L.	48·9	58·0	45·6	49·0	61·2	46·5	159 13 51·5	………	38·9	29·38	40·0	+ 2 32·3	−13 10 37·8
	(c) β Ursæ Minoris	44·5	53·8	42·3	41·8	60·6	41·0	71 16 47·4	+ 0·2	38·5	29·42	40·0	− 0 20·1	+74 49 22·1
	γ Draconis	55·0	62·1	50·6	53·7	68·2	50·8	94 34 56·7	………	37·2	29·51	41·9	+ 0 4·6	+51 30 48·3
	(d) γ Ursæ Major. S. P.	33·7	42·0	27·2	29·8	48·0	29·8	20 44 35·1	− 0·5	33·4	29·55	37·0	− 2 37·5	+54 36 7·5
	γ Pegasi	17·9	24·6	12·9	15·1	31·3	17·0	131 48 19·8	………	33·2	……	……	+ 0 53·1	+14 16 36·7
	(a) α Ursæ Minoris	63·0	70·9	57·8	58·8	77·4	59·0	57 40 4·5	………	33 5	29·55	35·7	− 0 38·0	+88 26 23·1
Oct. 28	Sun North L.	49·0	57·0	44·2	48·1	59·0	46·1	159 1 50·6	………	36·0	29·52	37·4	+ 2 32·4	−12 58 33·4
Oct. 31	α Ophiuchi	45·7	51·1	41·2	42·9	58·5	42·1	133 23 46·9	………	33·8	29·78	35·7	+ 0 56·5	+12 41 6·2
Nov. 2	α Ophiuchi	45·5	52·9	45·0	45·1	58·0	40·0	133 23 47·7	………	47·0	29·37	46·0	+ 0 54·1	+12 41 7·8
	(e) γ Draconis	54·9	63·9	54·9	54·8	67·5	49·0	94 34 57·5	+ 0·1	46·0	……	……	+ 0 4·5	+51 30 47·5
	(a) δ Ursæ Minoris	49·5	59·4	50·3	47·4	63·9	43·5	59 30 52·4	………	45·8	……	……	− 0 34·2	+86 35 31·4
	α Lyræ	11·9	20·3	12·6	11·8	26·2	6·8	107 27 15·0	………	45·7	29·40	45·7	+ 0 18·0	+38 38 16·6
Nov. 3	(a) δ Ursæ Minoris	49·2	59·0	49·2	48·2	65·1	42·9	59 30 52·3	………	41·8	……	……	− 0 34·0	+86 35 31·3
	α Lyræ	13·5	20·9	12·0	12·3	26·7	9·1	107 27 15·8	………	41·5	28·97	43·3	+ 0 17·9	+38 38 15·9
Nov. 4	Sun South L.	47·0	55·0	43·9	45·7	58·5	42·1	161 48 48·7	………	39·2	28·82	41·2	+ 2 51·8	−15 45 50·9
	α Ophiuchi	48·0	54·8	45·9	46·8	61·5	43·5	133 23 50·1	………	37·0	28·80	41·9	+ 0 54·2	+12 41 5·3
Nov. 5	Sun North L.	52·9	60·6	49·9	52·5	62·4	49·5	161 34 54·6	………	39·0	28·64	40·2	+ 2 48·5	−15 31 53·5
	β Ursæ Minoris	48·0	57·3	44·8	46·2	61·4	42·7	71 16 50·1	………	39·1	……	……	− 0 19·5	+74 49 19·0
	γ Draconis	57·5	65·0	55·0	55·8	71·0	52·0	94 34 59·4	………	38·6	28·70	41·0	+ 0 4·5	+51 30 45·7
Nov. 7	Sun South L.	47·2	54·5	44·0	46·5	58·0	44·2	162 42 49·1	………	37·6	29·25	38·8	+ 3 4·4	−16 40 3·9
Nov. 10	(f) Sun North L. *	11·9	18·9	7·8	11·2	21·9	7·0	163 2 13·1	− 0·4	49·0	29·01	47·3	+ 3 1·9	−16 59 25·0
Nov. 13	α Ophiuchi	48·7	54·0	46·5	47·5	60·1	43·3	133 23 50·0	………	47·8	28·99	46·8	+ 0 53·3	+12 41 6·3
	γ Draconis	58·1	66·5	57·1	59·0	72·6	51·2	94 35 0·8	………	46·6	……	……	+ 0 4·4	+51 30 44·4
	(a) δ Ursæ Minoris	51·8	62·0	52·6	50·0	66·0	44·9	59 30 54·6	………	46·0	……	……	− 0 33·7	+86 35 28·7
	α Lyræ	14·0	22·0	15·0	14·5	27·8	9·2	107 27 17·1	………	45·8	28·99	46·4	+ 0 17·8	+38 38 14·7
	Moon South L.	42·8	49·8	42·2	43·0	55·0	38·4	173 29 45·2	+ 0·4	43·8	29·00	45·1	+ 7 37·4	−27 31 33·4
Nov. 14	(f) Sun South L.	56·3	64·0	52·3	56·0	66·1	52·0	164 38 57·8	− 0·3	41·2	……	……	+ 3 25·4	−18 36 33·3
	α Coronæ borealis	8·8	17·3	6·8	8·3	22·5	4·0	118 49 11·3	………	41·5	29·08	42·0	+ 0 31·6	+27 16 6·7
	γ Draconis	59·8	67·0	56·5	58·2	71·1	53·0	94 35 0·9	………	41·7	……	……	+ 0 4·5	+51 30 44·2
	(a) δ Ursæ Minoris	52·4	62·0	51·0	50·0	66·8	46·3	59 30 54·8	………	40·9	……	……	− 0 34·2	+86 35 29·0
	α Lyræ	15·3	22·5	14·0	13·5	29·8	12·0	107 27 17·9	………	40·8	29·12	42·3	+ 0 18·0	+38 38 13·7
	(g) Moon South L.	39·0	47·5	35·9	37·5	49·9	35·1	170 18 40·8	+ 1·0	39·0	29·18	40·9	+ 5 24·6	−24 18 16·8
Nov. 28	α Arietis	47·2	53·0	47·5	47·0	59·6	42·9	123 23 49·5	………	43·6	28·58	43·5	+ 0 37·0	+22 41 22·8
	ξ^1 Arietis	36·2	44·3	37·2	37·1	51·4	32·6	136 12 39·7	………	44·0	……	……	+ 0 58·5	+ 9 52 11·1
Nov. 30	Sun North L.	61·0	68·8	57·5	61·8	69·5	56·6	167 29 2·5	………	41·0	29·13	42·0	+ 4 12·2	−21 27 25·4
	α Ophiuchi	51·8	58·6	50·1	50·5	63·8	46·2	133 23 53·5	………	41·0	29·15	42·0	+ 0 54·4	+12 41 1·4

(a) On Meridian.
(b) After this observation the Telescope received a slight blow.

(c) At $14^h\ 52^m\ 30^s$.
(d) 42^s after transit.
(e) 20^s after transit.

(f) At Wire IV.
(g) At $20^h\ 53^m\ 20^s$.

Date.	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
Nov. 30	α Cassiopeæ	63·4	70·9	61·2	62·8	76·7	58·3	90 27 5·6	....	38·3	29·29	40·3	+ 0 0·3	+ 55 38 43·4
	(a) Moon South L.	11·0	19·0	7·9	10·1	24·5	6·3	133 48 13·1	− 16·2	38·0	29·42	40·8	+ 0 56·1	+ 12 16 56·3
	(b) α Ursæ Majoris	16·9	24·7	14·0	15·7	31·9	11·8	83 28 19·1	+ 0·1	37·6	......	......	− 0 6·9	+ 62 37 37·0
Dec. 1	(c) Sun South L.	36·0	43·8	33·1	35·3	47·0	33·0	168 10 38·0	− 1·2	42·0	29·44	42·7	+ 4 28·9	− 22 9 16·4
	α Ophiuchi	51·0	58·1	49·0	50·7	63·5	46·0	133 23 53·0	....	42·8	29·45	43·2	+ 0 54·8	+ 12 41 1·5
	γ Draconis	64·1	71·3	61·8	63·0	75·8	56·9	94 35 5·5	....	42·4	......	......	+ 0 4·5	+ 51 30 39·3
Dec. 2	(d) Moon South L.	43·0	51·4	41·5	44·3	56·0	39·0	145 27 45·8	− 15·2	44·0	28·89	44·7	+ 1 22·2	+ 0 36 56·5
	(e) α Ursæ Minor. S. P.	63·9	74·0	62·8	62·2	79·2	57·8	54 33 6·6	....	44·0	28·90	44·5	− 0 40·8	+ 88 26 36·5
	α Virginis	60·0	67·0	57·5	60·0	70·0	53·0	156 22 1·3	....	44·1	......	......	+ 2 8·7	− 10 18 20·7
Dec. 3	Sun North L.	51·1	60·0	48·9	52·0	61·1	46·0	167 55 53·2	....	45·7	28·98	45·4	+ 4 17·4	− 21 54 21·3
	γ Draconis	63·6	72·0	63·1	63·5	79·1	56·2	94 35 6·3	....	46·0	29·02	45·5	+ 0 4·4	+ 51 30 38·6
	(f) α Ursæ Minor. S. P.	66·0	75·3	65·0	64·2	81·8	58·9	54 33 8·5	− 0·8	45·0	28·94	45·3	− 0 40·8	+ 88 26 37·6
	(g) Moon South L.	50·8	57·4	49·5	51·5	62·7	44·6	151 47 52·7	− 2·3	45·4	......	......	+ 1 45·2	− 5 43 46·3
	ζ Ursæ Majoris	11·8	21·3	12·1	11·8	26·7	5·9	90 19 14·9	....	45·0	......	......	+ 0 0·2	+ 55 46 34·2
	η Ursæ Majoris	62·7	72·1	62·8	63·4	78·1	56·0	95 58 5·8	....	44·6	......	......	+ 0 5·8	+ 50 7 37·7
	(h) Venus South L.	47·1	53·1	43·4	47·1	57·6	40·8	156 43 48·2	− 1·2	43·5	28·99	45·1	+ 2 11·4	− 10 40 9·1
Dec. 7	Sun South L.	56·2	64·4	54·8	57·0	66·9	51·5	168 57 58·4	....	46·9	28·72	45·9	+ 4 37·4	− 22 56 46·5
	(e) α Ursæ Minoris	45·8	53·8	44·2	43·2	60·1	39·1	57 39 47·7	....	42·0	28·77	43·7	− 0 36·3	+ 88 26 37·9
	(i) ζ Ursæ Major. S. P.	41·2	52·0	39 9	42·1	56·2	35·8	21 54 44·5	− 0·2	41·9	......	......	− 2 21·8	+ 55 46 33·2
	α Arietis	47·9	53·8	47·3	45·2	60·2	41·9	123 23 49·4	....	41·5	28·80	42·8	+ 0 37·5	+ 22 41 22·4
Dec. 8	γ Draconis	65·9	74·0	62·9	65·2	80·0	59·1	94 35 7·8	....	39·8	28·46	41·5	+ 0 4·4	+ 51 30 37·1
	α Lyræ	21·1	28·2	19·8	20·0	35·3	18·1	107 27 23·8	....	39·9	28·47	41·5	+ 0 17·7	+ 38 38 7·8
	α Aquilæ	15·8	23·0	12·5	14·0	29·2	10·0	137 38 17·4	....	40·1	28·48	41·8	+ 1 1·8	+ 8 26 30·1
Dec. 9	Sun North L.	49·6	56·0	45·0	48·9	59·2	45·0	168 37 50·6	....	37·2	28·43	38·6	+ 4 32·8	− 22 36 34·1
	α Ophiuchi	55·2	62·1	51·5	54·2	67·8	50·1	133 23 56·8	....	37·5	......	......	+ 0 53·5	+ 12 40 59·0
	α Aquilæ	16·9	23·5	12·3	15·0	29·8	11·0	137 38 18·0	....	37·9	28·41	38·9	+ 1 1·9	+ 8 26 29·4
	(k) α Cygni	31·0	36·8	28·4	28·8	45·9	27·1	101 23 33·0	+ 0·2	37·1	28·40	38·7	+ 0 11·3	+ 44 42 4·8
Dec. 10	Sun South L.	30·5	35·9	25·0	30·0	38·0	28·1	169 15 31·3	....	40·0	28·80	40·8	+ 4 49·8	− 23 14 31·8
	γ Draconis	6·8	14·1	4·1	7·0	19·8	1·0	94 35 8·8	....	40·1	......	......	+ 0 4·5	+ 51 30 36·0
	α Lyræ	22·8	27·9	21·0	21·9	34·9	19·6	107 27 24·7	....	40·1	......	......	+ 0 17·9	+ 38 38 6·7
	α Aquilæ	16·7	22·3	13·0	15·0	27·9	11·4	137 38 17·7	....	39·8	28·85	40·6	+ 1 2·6	+ 8 26 29·0
	Uranus	13·0	20·9	9·6	13·0	23·5	9·2	157 53 14·8	....	37·0	28·90	38·5	+ 2 20·6	− 11 49 46·1
	(l) β Ursæ Minor. S. P.	61·3	70·9	57·0	59·8	74·1	56·1	40 56 3·2	− 0·3	34·0	28·98	36·0	− 1 7·6	+ 74 49 6·0
Dec. 12	α Ceti	46·0	53·6	44·0	45·0	59·7	43·0	142 37 48·5	....	43·5	28·50	38·8	+ 1 13·2	+ 3 26 47·6
Dec. 13	Sun North L.	48·1	55·9	45·2	49·0	57·7	44·4	168 56 50·1	....	41·3	28·40	41·3	+ 4 37·3	− 22 55 38·1
	γ Draconis	7·2	15·0	5·8	7·3	20·5	2·0	94 35 9·6	....	41·0	......	......	+ 0 4·4	+ 51 30 35·3
	α Lyræ	23·2	30·0	22·0	23·0	36·1	20·9	107 27 25·9	....	41·1	28·37	41·2	+ 0 17·6	+ 38 38 5·8
	Moon South L.	45·0	52·7	42·0	44·8	55·6	40·8	161 57 46·8	+ 0·9	38·8	28·34	40·0	+ 2 50·5	− 15 54 48·9
	(m) α Ursæ Minoris	41·9	50·2	40·5	40·8	56·1	37·9	57 39 44·6	+ 0·6	40·0	28·31	40·1	− 0 35·9	+ 88 26 40·0
	α Arietis	47·0	53·8	46·5	46·5	60·8	43·0	123 23 49·6	....	40·0	28·28	40·5	+ 0 36·9	+ 22 41 22·8
	β Ursæ Minor. S. P.	55·4	65·9	54·0	55·7	69·0	50·0	40 55 58·4	....	40·7	28·25	40·6	− 1 5·0	+ 74 49 4·1
Dec. 14	Uranus	46·6	54·9	44·9	47·3	57·2	42·4	157 50 48·9	....	41·0	29·03	41·7	+ 2 19·7	− 11 47 19·3
	(n) α Ursæ Minoris	41·0	50·9	41·0	40·3	56·8	36·8	57 39 44·6	+ 0·8	40·0	29·22	41·0	− 0 37·0	+ 88 26 40·9
	ζ Ursæ Major. S. P.	41·1	51·5	39·9	42·0	56·0	37·2	21 54 44·6	....	39·9	......	......	− 2 24·7	+ 55 46 30·6
	α Ceti	43·1	51·5	42·9	42·9	57·0	39·0	142 37 46·0	....	40·0	29·31	40·8	+ 1 15·8	+ 3 26 47·5
	α Persei	61·2	69·5	59·9	60·4	73·5	55·7	96 49 3·4	....	40·0	......	......	+ 0 6·8	+ 49 16 39·1
	β Ursæ Minoris	63·1	71·9	59·9	61·0	76·0	57·4	71 17 4·9	....	35·8	......	......	− 0 20·3	+ 74 49 4·7

(a) At $10^h\ 45^m\ 8^s$.
(b) At $10^h\ 54^m\ 40^s$.
(c) At $16^h\ 32^m\ 37^s$.
(d) At $12^h\ 18^m\ 20^s$.
(e) On Meridian.
(f) At $12^h\ 58^m\ 4^s$.
(g) At $13^h\ 5^m\ 39^s$.
(h) At $14^h\ 9^m\ 0^s$.
(i) At Wire IV.
(k) 25^s after transit.
(l) 48^s after transit.
(m) At $0^h\ 58^m\ 15^s$.
(n) At $1^h\ 5^m\ 32^s$.

Date.	OBJECT OBSERVED.	Microscope.						Mean Reading of Circle.	Reduction to Meridian.	Ext. Ther.	Bar.	Att. Ther.	Refraction.	Apparent Declination observed.
		I.	II.	III.	IV.	V.	VI.							
		″	″	″	″	″	″	° ′ ″	″	°	In.	°	′ ″	° ′ ″
Dec. 14	Venus South L.	56·0	63·0	51·6	57·2	67·0	53·2	160 57 57·9	....	35·9	29·60	39·3	+2 49·4	−14 54 58·0
Dec. 15	Moon South L.	7·5	14·8	5·0	7·0	18·9	3·1	149 28 9·3	+ 1·0	41·0	29·09	40·6	+1 37·1	− 3 23 58·1
	β Ursæ Minoris	62·9	71·9	59·9	61·2	76·2	56·8	71 17 4·9	....	38·6	......	......	−0 19·9	+74 49 4·3
	Venus South L.	19·2	26·7	15·5	17·9	29·2	16·1	161 19 20·8	....	38·7	29·13	39·9	+2 49·0	−15 16 20·5
	α Ophiuchi	55·0	61·0	52·5	53·9	66·1	49·3	133 23 56·3	....	41·8	......	......	+0 54·5	+12 40 58·5
Dec. 16	Sun South L.	24·9	32·5	21·0	23·9	36·0	22·1	169 38 26·7	....	42·0	29·22	41·3	+5 3·1	−23 37 40·5
	γ Draconis	9·0	16·9	6·6	9·0	21·0	3·1	94 35 10·9	....	42·0	......	......	+0 4·5	+51 30 33·9
	α Lyræ	23·1	30·0	22·0	23·2	36·5	21·0	107 27 26·0	....	42·0	29·23	41·7	+0 18·1	+38 38 5·2
	(*a*) α Aquilæ	15·0	22·3	12·8	14·4	27·8	11·0	137 38 17·2	+ 0·2	42·0	29·28	42·0	+1 3·2	+ 8 26 28·7
	Uranus	24·8	32·1	22·1	25·1	35·2	23·0	157 49 27·0	....	41·0	29·37	41·3	+2 21·2	−11 45 58·9
	Moon South L.	11·2	19·9	10·0	10·0	24·2	7·0	143 9 13·7	+ 1·0	40·2	......	......	+1 17·6	+ 2 55 17·0
	(*b*) α Ursæ Minoris	42·8	50·0	40·9	40·2	56·0	38·2	57 39 44·6	+ 0·6	40·0	29·44	41·0	−0 37·3	+88 26 41·4
	μ Piscium	31·9	37·9	29·0	36·0	42·0	28·0	140 46 33·2	....	40·0	......	......	+1 11·3	+ 5 18 4·8
	ν Piscium	57·2	65·0	55·2	57·0	70·1	52·4	141 24 59·5	....	40·0	29·45	41·0	+1 13·0	+ 4 39 36·8
Dec. 17	Sun North L.	24·2	30·9	21·5	25·0	33·8	21·8	169 8 26·2	....	46·8	29·42	45·7	+4 48·6	−23 7 25·5
	γ Draconis	7·9	16·0	7·6	8·5	21·8	1·6	94 35 10·6	....	46·9	......	......	+0 4·5	+51 30 34·2
	α Lyræ *	23·0	28·0	22·2	21·9	35·5	19·0	107 27 24·9	....	47·0	29·41	46·4	+0 18·0	+38 38 6·4
Dec. 19	α Arietis	45·8	52·1	45·7	45·9	58·1	41·1	123 23 48·1	....	44·2	29·52	45·8	+0 38·2	+22 41 23·0
	α Ceti	43·0	50·5	42·5	43·8	57·0	39·6	142 37 46·0	....	44·0	29·54	45·3	+1 15·8	+ 3 26 47·5
	δ Arietis	38·3	44·3	37·9	37·8	51·5	34·0	126 58 40·6	....	44·0	......	......	+0 43·6	+19 6 25·1
	α Persei	60·1	68·0	58·2	59·0	73·1	52·9	96 49 1·8	....	43·7	......	......	+0 6·8	+49 16 40·7
	Moon South L.	43·4	49·5	43·0	42·5	55·9	37·8	126 56 45·4	+ 0·7	43·5	29·54	45·0	+0 43·6	+19 8 19·6
Dec. 21	(*c*) Sun South L.	51·2	59·5	47·9	50·7	61·9	45·5	169 44 52·8	− 0·1	47·5	29·81	47·0	+5 8·4	−23 44 12·0
	α Lyræ *	24·4	30·5	22·5	23·2	38·1	19·3	107 27 26·3	....	48·0	......	......	+0 18·2	+38 38 4·6
	(*d*) α Cephei	57·5	66·6	57·0	57·8	71·1	51·0	84 12 0·2	+ 0·2	47·5	29·86	46·5	−0 6·1	+61 53 54·8
	α Tauri	20·0	26·9	20·0	20·8	34·1	16·5	129 54 23·0	....	46·0	29·95	46·3	+0 48·9	+16 10 37·2
	Moon North L.	39·0	45·5	38·5	39·2	52·0	33·2	120 5 41·2	+ 0·3	46·0	29·95	46·5	+0 33·9	+25 59 33·7
	136 Tauri	9·8	17·0	8·7	10·5	22·6	2·9	118 31 11·9	....	46·0	......	......	+0 31·8	+27 34 5·4
Dec. 23	α Lyræ	24·2	30·7	21·0	23·0	37·1	21·7	107 27 26·3	....	34·1	29·65	38·5	+0 18·6	+38 38 4·2
	α Tauri	19·2	24·9	14·3	17·8	31·0	17·0	129 54 20·7	....	29·8	29·66	35·9	+0 50·2	+16 10 38·2
	β Orionis	22·8	28·9	14·8	21·3	31·0	20·0	154 27 23·2	....	30·0	29·65	34·2	+2 4·9	− 8 23 39·0
	(*e*) 51 (Hev.) Cephei	29·0	35·0	23·0	25·0	43·0	26·7	58 50 30·3	....	29·2	......	......	−0 36·7	+87 15 55·5
	(*f*) δ Ursæ Minor. S.P.	54·0	62·2	48·5	51·2	67·2	49·4	52 41 55·4	− 1·7	29·2	29·64	32·7	−0 46·3	+86 35 18·3
	Moon North L.	34·9	39·8	28·1	33·1	48·2	32·2	118 57 36·1	− 0·1	29·0	......	......	+0 33·3	+27 7 39·8
	β Geminorum	25·2	29·9	17·9	23·3	37·0	24·0	117 40 26·2	....	28·8	29·62	31·5	+0 31·5	+28 24 51·4
Dec. 24	α Cygni	30·4	36·0	27·0	28·7	43·8	27·1	101 23 32·2	....	34·6	29·84	37·1	+0 12·0	+44 42 4·9
	α Aquarii	55·0	62·0	51·2	54·7	66·0	51·0	147 10 56·6	....	33·0	29·86	36·8	+1 32·9	− 1 6 40·4
Dec. 31	α Ceti *	41·0	47·6	38·1	41·1	50·5	39·3	142 37 43·0	....	31·0	30·26	33·4	+1 19·9	+ 3 26 46·2
	α Persei	58·9	65·9	55·0	57·0	70·9	53·2	96 49 0·2	....	30·9	......	......	+0 7·0	+49 16 41·9
	α Tauri	19·0	25·7	15·9	20·0	31·5	18·0	129 54 21·7	....	29·3	30·28	31·7	+0 51·3	+16 10 36·1
	(*e*) Moon South L.	48·2	53·5	42·0	48·5	56·8	46·0	155 23 49·2	....	25·0	30·24	28·5	+2 14·4	− 9 20 14·5

(*a*) 50^s after transit.
(*b*) At $1^h\ 4^m\ 55^s$.

(*c*) At Wire IV.
(*d*) At Wire II.

(*e*) On Meridian.
(*f*) At $6^h\ 28^m\ 42^s$.

ELEMENTS

FOR

REDUCING THE OBSERVATIONS

MADE WITH

THE MURAL CIRCLE;

AND

MEAN DECLINATIONS OF THE STARS OBSERVED,

For January 1, 1836.

MEAN VALUE OF THE RUNS OF THE SIX MICROSCOPES.

Period.		Mean Value of Runs.	Period.		Mean Value of Runs.
Beginning	Ending		Beginning	Ending	
1836,	1836,	″	1836,	1836,	″
January 3	January 30	299·78	July 25	August 7	300·26
31	March 26	299·82	August 8	20	300·11
March 27	May 3	299·88	22	September 6	300·02
May 5	11	299·90	September 8	October 3	300·04
11	23	299·98	October 4	November 14	299·90
24	31	299·99	November 28	December 19	299·86
July 2	July 22	300·28	December 21	31	299·96

CORRECTION OF THE CIRCLE-CLOCK.

Date.	Time by Circle-Clock.	Correction.	Date.	Time by Circle-Clock.	Correction.	Date.	Time by Circle-Clock.	Correction.
1836,	h. m.	s.	1836,	h. m.	s.	1836,	h. m.	s.
Aug. 4	9 8	+ 19·1	Sept. 22	12 16	− 44·1	Nov. 9	18 13	− 51·3
5	16 8	19·4	23	12 27	46·0	10	15 25	51·6
7	10 35	19·4	24	12 48	48·0	11	15 36	51·4
8	9 17	19·9	26	14 1	50·0	12	16 4	50·8
9	9 30	20·0	27	12 56	50·4	13	17 22	50·3
10	9 30	19·6	28	12 33	50·6	14	15 36	49·4
11	9 33	19·3	29	12 36	51·2	22	15 57	43·2
12	9 44	18·9	30	12 37	51·7	23	16 19	43·1
13	9 51	17·9				24	16 19	42·9
15	9 57	15·8	Oct. 1	13 34	52·8	25	16 17	43·1
16	9 58	15·2	2	13 29	53·9	26	16 54	43·0
17	10 9	14·1	3	12 44	54·9	28	16 23	42·5
19	10 6	11·4	4	12 56	56·1	29	16 52	41·7
20	10 2	9·8	5	12 57	56·8	30	16 37	40·5
22	10 21	6·6	6	13 18	57·3			
23	10 23	4·5	8	13 15	55·8	Dec. 1	16 45	39·4
24	10 22	2·7	10	14 5	52·3	2	16 57	38·1
25	10 24	+ 0·6	11	13 43	51·7	3	16 49	36·4
26	10 34	− 1·8	12	13 43	50·6	5	17 7	32·9
27	10 37	4·3	13	13 34	50·2	6	17 9	31·2
29	10 41	9·5	14	13 38	49·6	7	17 11	29·5
30	10 44	12·9	15	13 51	48·7	9	17 14	26·1
31	12 31	16·3	17	13 53	47·0	10	17 23	25·5
			18	14 5	46·5	12	17 42	24·3
Sept. 1	10 55	18·3	19	13 58	46·1	13	17 49	24·1
2	10 57	20·7	20	14 4	45·6	14	17 39	24·0
3	10 59	23·1	21	15 29	44·8	15	17 46	23·9
4	11 0	25·3	22	14 33	44·3	16	17 44	24·0
5	11 7	27·2	24	14 6	42·8	17	17 58	24·0
6	11 5	29·0	25	14 16	41·4	19	17 58	23·1
7	11 14	30·5	26	14 16	40·5	20	18 6	22·1
8	11 22	31·9	27	14 33	39·5	21	18 39	20·7
9	11 29	33·5	28	14 22	40·0	22	18 14	19·5
10	11 30	34·8	31	14 32	44·1	23	18 22	17·7
12	11 37	38·0				26	20 28	15·1
13	11 34	39·4	Nov. 1	15 11	46·1	27	18 52	15·0
14	11 48	40·2	2	14 33	47·9	28	18 47	15·0
15	11 48	40·6	3	15 38	48·4	29	18 51	15·2
16	11 49	40·8	4	14 49	48·7	30	19 13	15·3
17	12 3	40·6	5	14 58	49·0	31	19 2	15·3
19	18 59	40·5	7	15 1	49·6			
21	12 55	42·1	8	17 2	50·4			

POSITION OF THE EQUATORIAL POINT, DEDUCED FROM OBSERVATIONS OF THE STANDARD STARS.

Date.	Star.	Equatorial Point.
1836,		° ′ ″
January 9	α Aquilæ	146 5 44·6
	α Cygni	44·2
	δ Ursæ Minor. S. P.	44·1
	α Canis Majoris	43·2
12	α Bootis	44·4
14	β Tauri	45·7
	α Orionis	45·1
	δ Ursæ Minor. S. P.	44·5
15	α Pegasi	44·9
	α Andromedæ	44·8
	α Aurigæ	43·7
	δ Ursæ Minor. S. P.	44·3
	α Aquilæ	44·5
16	α Cygni	44·4
	α Orionis	45·9
	δ Ursæ Minor. S. P.	43·8
22	γ Pegasi	45·3
	α Tauri	45·2
27	α Tauri	44·2
28	β Tauri	45·7
	α Orionis	44·2
31	α Ursæ Minoris	43·7
February 1	α Andromedæ	45·2
4	α Ursæ Minoris	45·7
5	α Geminor. following	43·6
	β Geminorum	44·6
	α Cygni	44·4
6	α Pegasi	46·0
	α Canis Majoris	42·4
9	α Ursæ Minoris	44·5
	α Canis Majoris	42·7
10	α Ursæ Minoris	45·2
	β Tauri	46·0
11	α Andromedæ	45·1
	α Ursæ Minoris	44·4
12	α Andromedæ	45·8
	α Ursæ Minoris	45·2
16	α Ursæ Minoris	44·2
	α Arietis	43·8
17	α Arietis	43·9
	δ Ursæ Minor. S. P.	44·5
20	α Ursæ Minoris	44·3
22	α Ursæ Minoris	44·0
	α Arietis	44·6
	δ Ursæ Minor. S. P.	43·6
	α Canis Majoris	43·4
23	α Ursæ Minoris	44·3
	δ Ursæ Minor. S. P.	46·9
March 2	δ Ursæ Minor. S. P.	44·1
	α Canis Majoris	43·7
	α Geminor. following	45·4
	α Canis Minoris	43·6
3	α Ursæ Minoris	45·1
	β Leonis	43·8
4	α Ursæ Minoris	44·8
	α Ceti	44·5
	β Leonis	44·0
1836,		° ′ ″
March 9	α Arietis	146 5 44·5
11	α Ursæ Minoris	44·7
14	α Ursæ Minoris	43·8
	δ Ursæ Minor. S. P.	45·3
	α Canis Majoris	43·4
	β Leonis	44·8
15	α Ursæ Minoris	44·8
	β Leonis	46·1
17	δ Ursæ Minor. S. P.	44·8
	α Canis Majoris	43·0
18	α Leonis	43·8
19	α Ursæ Minoris	45·0
	β Geminorum	44·3
	α Hydræ	43·6
	α Leonis	43·8
22	δ Ursæ Minor. S. P.	44·3
	α Canis Majoris	41·9
23	α Aurigæ	45·0
	β Tauri	45·4
	α Orionis	44·4
	δ Ursæ Minor. S. P.	43·3
24	α Tauri	45·0
	α Geminor. following	45·3
	α Canis Minoris	44·3
25	δ Ursæ Minor. S. P.	45·1
	α Canis Majoris	44·1
	α Geminor. following	45·6
	α Canis Minoris	44·7
26	α Canis Majoris	43·9
	α Geminor. following	45·0
	α Canis Minoris	45·6
27	α Ursæ Minoris	44·6
	α Geminor. following	44·1
	α Canis Minoris	43·5
29	α Persei	45·0
	δ Ursæ Minor. S. P.	44·3
	α Canis Majoris	43·1
30	γ Ursæ Majoris	44·2
April 1	α Ursæ Minoris	44·7
	α Ursæ Majoris	44·0
	β Leonis	44·6
	α Ursæ Minor. S. P.	44·4
2	α Ursæ Minor. S. P.	43·7
	α Virginis	46·0
	η Ursæ Majoris	44·4
4	α Aurigæ	44·9
6	α Persei	45·5
	α Tauri	44·4
	β Orionis	43·9
12	α Ursæ Minor. S. P.	44·0
	ζ Ursæ Majoris	44·0
	η Ursæ Majoris	44·5
13	α Persei	45·5
	α Tauri	44·1
	β Orionis	43·8
	α Ursæ Minor. S. P.	45·0
15	β Orionis	42·6

Date.	Star.	Equatorial Point.	Date.	Star.	Equatorial Point.
1836,		° ′ ″	1836,		° ′ ″
April 15	β Tauri	146 5 41·9	May 7	α Canis Majoris	146 5 43·3
	α Ursæ Minor. S.P.	43·7		α Ursæ Majoris	44·1
	α Virginis	44·1		γ Ursæ Majoris	43·9
20	α Orionis	44·4		α Ursæ Minor. S.P.	45·8
	α Ursæ Majoris	44·3	8	α Ursæ Minoris	45·2
	α Ursæ Minor. S.P.	44·3	9	α Ursæ Minoris	45·5
	α Virginis	44·0	10	α Ursæ Minor. S.P.	45·3
21	α Ursæ Majoris	44·3		η Ursæ Majoris	43·8
	γ Ursæ Minoris	43·6		α Bootis	43·8
	η Ursæ Majoris	43·8	11	α Ursæ Majoris	44·8
	α Ursæ Minoris	44·6		γ Ursæ Majoris	44·2
22	α Aurigæ	44·4	12	α Aurigæ	44·8
	α Orionis	43·6		α Orionis	42·7
	α Canis Majoris	42·7		α Ursæ Majoris	44·6
	α Ursæ Minor. S.P.	44·9		α Ursæ Minor. S.P.	44·4
23	α Hydræ	43·6	13	α Ursæ Minor. S.P.	44·2
	γ Ursæ Majoris	44·8	14	γ Ursæ Majoris	43·6
	α Ursæ Minor. S.P.	45·8		α Ursæ Minor. S.P.	44·7
24	α Hydræ	42·9		α Virginis	45·2
	α Leonis	43·6	18	α Ursæ Minor. S.P.	45·6
	α Ursæ Minoris	43·4		α Virginis	44·2
25	α Canis Majoris	41·9		η Ursæ Majoris	43·4
	η Ursæ Majoris	43·7	19	α Ursæ Minor. S.P.	45·3
	α Bootis	44·6		ζ Ursæ Majoris	43·0
	α Ursæ Minoris	44·2		η Ursæ Majoris	44·9
26	α Aurigæ	44·0	23	α Bootis	43·0
	α Ursæ Minor. S.P.	44·5		α² Libræ	42·9
	ζ Ursæ Majoris	44·6		β Ursæ Minoris	43·0
	α Ursæ Minoris	44·9		α Ursæ Minoris	45·7
27	α Tauri	44·6	25	α Aurigæ	44·9
	β Tauri	43·3	26	α Geminor. following	44·8
	α Canis Majoris	44·1		β Geminorum	44·1
	α Ursæ Minoris	44·9		α Ursæ Minor. S.P.	44·0
28	α Canis Majoris	42·2		η Ursæ Majoris	44·8
	β Leonis	43·6	28	α Aurigæ	45·3
	α Ursæ Minor. S.P.	45·9		α Canis Minoris	45·0
	ζ Ursæ Majoris	45·1		β Ursæ Minoris	44·2
	α Ursæ Minoris	45·8	29	β Ursæ Minoris	43·8
29	α Tauri	44·6		α Serpentis	43·1
	α Ursæ Minor. S.P.	44·1		α Herculis	44·0
	α Bootis	44·4	30	α Aurigæ	45·1
30	α Ursæ Majoris	44·7		α Canis Minoris	44·9
				β Geminorum	44·2
May 1	α Ursæ Majoris	43·9			
	α Ursæ Minor. S.P.	43·6	July 4	α Leonis	44·3
	ζ Ursæ Majoris	43·5		α Ursæ Majoris	44·9
	η Ursæ Majoris	44·2	6	α Leonis	44·0
	α Ursæ Minoris	45·5		α Ursæ Majoris	44·3
2	α Aurigæ	43·4		α Ursæ Minor. S.P.	44·8
	β Tauri	44·4		α Virginis	43·1
	α Canis Majoris	43·6	7	α Ursæ Minor. S.P.	44·0
	α Ursæ Minor. S.P.	43·8	11	α Tauri	45·0
	α Ursæ Minoris	46·0	13	α Ursæ Minor. S.P.	44·8
3	α Ursæ Majoris	43·2		η Ursæ Majoris	43·7
	γ Ursæ Majoris	43·8		γ Draconis	44·7
5	α Ursæ Minor. S.P.	43·7	14	α Ursæ Majoris	44·6
	η Ursæ Majoris	44·3	15	β Ursæ Minoris	43·2
	α Bootis	45·0	18	α Ursæ Majoris	44·2
	α Ursæ Minoris	44·7		γ Ursæ Majoris	43·8
6	α Persei	45·3		α Ursæ Minor. S.P.	44·0
	β Tauri	44·7		γ Draconis	45·3
	α Orionis	44·4	19	β Ursæ Minoris	44·7
	α Ursæ Minor. S.P.	43·8			
	α Ursæ Minoris	44·4	20	α Ursæ Majoris	45·1

Date.		Star.	Equatorial Point.		
1836,			°	′	″
July	20	α Ursæ Minor. S.P.	146	5	45·2
		γ Draconis			45·6
	22	α Herculis			45·2
	25	α Ophiuchi			45·1
		γ Draconis			46·2
		δ Ursæ Minoris			45·5
		α Lyræ			45·1
	26	α Lyræ			45·0
	30	α Ursæ Majoris			45·7
		α Cygni			46·0
	31	β Geminorum			47·2
August	1	α Ophiuchi			44·7
		γ Draconis			45·6
		δ Ursæ Minoris			45·9
		α Cygni			46·1
	4	α Ursæ Minor. S.P.			45·5
		α Ophiuchi			44·9
		γ Draconis			46·2
		α Lyræ			46·2
	5	α Herculis			44·8
	7	δ Ursæ Minoris			44·9
		α Lyræ			44·9
		γ Aquilæ			44·5
		β Aquilæ			45·8
	8	α Ursæ Majoris			45·5
		β Leonis			44·5
		α Ursæ Minor. S.P.			45·5
		α Virginis			43·7
		α Orionis			44·4
	9	α Ursæ Majoris			45·1
		η Ursæ Majoris			44·5
		δ Ursæ Minoris			44·9
	10	α Ursæ Majoris			46·2
		γ Ursæ Majoris			46·4
		α Ursæ Minor. S.P.			45·3
		ζ Ursæ Majoris			45·2
	11	α Ursæ Minor. S.P.			43·9
		ζ Ursæ Majoris			43·3
		δ Ursæ Minoris			44·3
		α Aquilæ			43·9
		α^2 Capricorni			46·2
	12	δ Ursæ Minoris			44·9
		α^2 Capricorni			44·4
		α Cephei			45·8
		α Aquarii			45·0
	13	α Ursæ Minor. S.P.			45·2
		γ Draconis			45·7
		α Lyræ			45·8
	14	β Geminorum			43·6
	16	δ Ursæ Minoris			46·4
		γ Aquilæ			44·7
		β Aquilæ			44·8
		α Aquarii			44·7
	17	α Herculis			44·3
		γ Draconis			45·0
		δ Ursæ Minoris			46·2
	18	ζ Ursæ Majoris			44·2
		η Ursæ Majoris			44·0
		α Bootis			45·1
		δ Ursæ Minoris			44·0
	19	η Ursæ Majoris			44·2
		α Bootis			44·6
	20	α Bootis			44·8
1836,			°	′	″
August	22	δ Ursæ Minoris	146	5	46·3
		α Cephei			44·6
		α Aquarii			44·3
		α Pegasi			44·3
	23	α Ursæ Majoris			45·2
		α Ursæ Minor. S.P.			45·6
		γ Draconis			45·9
		δ Ursæ Minoris			45·6
	24	α Cygni			45·6
		α Pegasi			45·8
	25	α Ursæ Minor. S.P.			45·0
		α Pegasi			46·0
	26	η Ursæ Majoris			46·5
	27	α Ursæ Minor. S.P.			46·1
	28	γ Aquilæ			45·6
		β Aquilæ			45·5
		α^2 Capricorni			44·7
	29	α Ursæ Minor. S.P.			46·0
		α Coronæ borealis			45·1
		α Serpentis			44·9
		α Pegasi			44·8
	31	α Ursæ Minor. S.P.			46·6
September	1	α Ursæ Minor. S.P.			46·2
		α Bootis			45·1
		γ Aquilæ			45·4
		β Aquilæ			45·1
	2	α Ursæ Minor. S.P.			45·9
		η Ursæ Majoris			44·6
		α Bootis			44·7
		β Ursæ Minoris			44·4
		δ Ursæ Minoris			45·3
		β Orionis			45·5
		β Tauri			45·6
	5	β Cephei			45·8
		α Aquarii			44·8
		α Pegasi			46·1
	6	α Ursæ Minor. S.P.			45·9
		α Bootis			46·1
		δ Ursæ Minoris			46·6
		γ Aquilæ			46·0
		β Cephei			45·7
	8	α Ursæ Majoris			45·6
	13	α Ursæ Minor. S.P.			46·5
		α Cephei			46·6
		α Aquarii			46·0
		α Pegasi			46·0
	14	α Ursæ Minor. S.P.			45·6
		ζ Ursæ Majoris			46·0
		α Bootis			46·4
	15	δ Ursæ Minoris			46·4
		α Pegasi			45·9
	16	α Bootis			45·5
		β Ursæ Minoris			44·5
		α Aquilæ			46·4
	17	α Ophiuchi			46·4
		β Aquilæ			45·8
		α^2 Capricorni			45·2
	19	γ Aquilæ			44·6
		β Aquilæ			45·3
	20	γ Aquilæ			45·3
		β Aquilæ			45·2
		α^2 Capricorni			46·8
	21	α Cephei			46·0

Date.	STAR.	Equatorial Point.	Date.	STAR.	Equatorial Point.
1836,		° ′ ″	1836,		° ′ ″
September 21	α Aquarii	146 5 46·0	October 24	α Ursæ Minor. S. P.	146 5 46·0
	α Pegasi	45·5	25	α Bootis	46·6
24	α Cephei	46·4		β Ursæ Minoris	45·3
	β Cephei	45·8		β Cephei	46·4
	α Aquarii	45·7		α Ursæ Minoris	45·0
26	α Aquarii	47·0	26	α Ursæ Minoris	45·7
28	α Cygni	45·7		α Ursæ Minor. S. P.	46·9
	α Cephei	47·0		ζ Ursæ Majoris	45·9
	β Cephei	45·5		η Ursæ Majoris	46·8
29	α Ursæ Minor. S. P.	46·9			
30	α Ursæ Minor. S. P.	46·6	27	(*a*) β Ursæ Minoris	49·4
	β Ursæ Minoris	45·0		γ Draconis	49·7
	α^2 Capricorni	46·0		γ Pegasi	51·4
	β Cephei	45·7		α Ursæ Minoris	51·6
October 2	α Geminor. following	46·8	31	α Ophiuchi	50·0
	α Canis Minoris	45·6	November 2	α Ophiuchi	48·2
	β Geminorum	46·4		γ Draconis	49·2
3	α Ursæ Minor. S. P.	47·0		δ Ursæ Minoris	49·3
4	α Ursæ Minor. S. P.	46·6		α Lyræ	49·0
	β Ursæ Minoris	45·6	3	δ Ursæ Minoris	49·2
	α Coronæ borealis	45·7		α Lyræ	49·6
	β Cephei	45·8	4	α Ophiuchi	50·4
	α Hydræ	45·9	5	β Ursæ Minoris	49·1
	α Leonis	45·9		γ Draconis	50·4
5	α Cygni	46·8	13	α Ophiuchi	48·0
	α Cephei	46·6		γ Draconis	49·7
	β Cephei	46·7		δ Ursæ Minoris	49·9
6	α Ursæ Minor. S. P.	45·8		α Lyræ	49·0
7	α Ursæ Minor. S. P.	46·3	14	α Coronæ borealis	48·9
8	α Ursæ Minor. S. P.	46·5		γ Draconis	49.6
	α Bootis	45·5		δ Ursæ Minoris	49·3
	α Cephei	47·1		α Lyræ	49·8
	β Cephei	46·9			
14	α Ursæ Minor. S. P.	45·8	28	α Arietis	49·4
16	α Ursæ Minor. S. P.	45·7	30	α Ophiuchi	49·4
17	β Ursæ Minoris	44·8		α Cassiopeæ	49·5
	α Pegasi	46·1		α Ursæ Majoris	48·8
	α Andromedæ	47·0	December 1	α Ophiuchi	49·2
	α Ursæ Minoris	46·8		γ Draconis	49·2
18	α Cassiopeæ	45·9	2	α Ursæ Minor. S. P.	48·7
	α Ursæ Minoris	46·3		α Virginis	49·7
	α Ursæ Minor. S. P.	46·3	3	γ Draconis	49·2
19	α Bootis	46·2		α Ursæ Minor. S. P.	49·6
	α Ophiuchi	44·4		ζ Ursæ Majoris	48·1
	γ Draconis	45·5		η Ursæ Majoris	49·1
	δ Ursæ Minoris	45·8	7	α Ursæ Minoris	49·6
	α Ursæ Minoris	45·4		α Arietis	50·2
20	γ Draconis	46·2	8	γ Draconis	49·1
	δ Ursæ Minoris	45·3		α Lyræ	49·4
21	β Cephei	46·4		α Aquilæ	49·4
	α Andromedæ	44·4	9	α Ophiuchi	50·0
	α Cassiopeæ	45·8		α Aquilæ	50·0
	α Ursæ Minoris	45·6		α Cygni	51·8
22	α Ursæ Minoris	45·7	10	γ Draconis	49·5
23	α Ursæ Minor. S. P.	46·5		α Lyræ	49·9
24	α Ophiuchi	44·9		α Aquilæ	50·2
	δ Ursæ Minoris	46·2	12	α Ceti	49·3
	α Arietis	46·5	13	γ Draconis	49·2

(*a*) The Telescope received a slight blow.

Date.	STAR.	Equatorial Point.	Date.	STAR.	Equatorial Point.
1836,		° ′ ″	1836,		° ′ ″
December 13	α Lyræ	146 5 49·9	December 19	α Ceti	146 5 48·9
	α Ursæ Minoris	48·8		α Persei	49·3
	α Arietis	49·9			
14	α Ursæ Minoris	48·1	21	α Lyræ	48·4
	α Ceti	49·2		α Cephei	48·7
	α Persei	50·1		α Tauri	49·4
	β Ursæ Minoris	48·0	23	α Lyræ	48·2
15	β Ursæ Minoris	48·0		α Tauri	48·4
	α Ophiuchi	48·9		β Orionis	48·0
16	γ Draconis	49·5		δ Ursæ Minor. S. P.	50·1
	α Lyræ	49·6		β Geminorum	49·9
	α Aquilæ	49·6	24	α Cygni	48·2
	α Ursæ Minoris	48·0		α Aquarii	49·8
17	γ Draconis	48·9	31	α Ceti	49·2
	α Lyræ	48·1		α Persei	49·5
19	α Arietis	49·7		α Tauri	50·4

POSITION OF THE EQUATORIAL POINT ADOPTED IN THE REDUCTIONS.

PERIOD.		Equatorial Point.	No of Obser-vations.	PERIOD.		Equatorial Point.	No. of Obser-vations.
Beginning	Ending			Beginning	Ending		
1836,	1836,	° ′ ″		1836,	1836,	° ′ ″	
January 3	February 26	146 5 44·6	48	August 8	August 20	146 5 44·9	39
March 2	March 31	44·4	47	22	September 6	45·4	41
April 1	April 30	44·2	61	September 8	October 27 (*a*)	46·0	89
May 1	May 31	44·3	64	October 27	November 14	49·6	22
July 2	July 19	44·3	18	November 28	December 19	49·3	43
20	August 7	45·5	25	December 21	31	49·1	13

(*a*) Period ends with observation of Sun, after which the Telescope received a slight blow.

MEAN DECLINATIONS OF THE STARS OBSERVED IN THE YEAR 1836, REDUCED TO JANUARY 1, 1836.

γ Pegasi.	
	° ′ ″
Jan. 22	+ 14 16 16·9
Oct. 27	15·7

α Cassiopeæ.	
Oct. 18	+ 55 38 12·8
21	12·9
Nov. 30	12·5

α Cassiopeæ S. P.	
April 23	+ 55 38 12·5
26	12·2
May 19	13·2

δ Piscium.	
Sept. 24	+ 6 41 28·3

α Ursæ Minoris.	
Jan. 31	+ 88 26 5·7
Feb. 4	3·7
9	4·9
10	4·2
11	5·0
12	4·1
16	5·1
20	5·0
22	5·4
23	5·1
Mar. 3	4·1
4	4·4
11	4·5
14	5·3
15	4·4
19	4·2
27	4·6
April 1	4·3
21	4·4
24	5·5
25	4·8
26	4·1
27	4·0
28	3·2
May 1	3·5

α Ursæ Minoris.	
	° ′ ″
May 2	+ 88 26 3·1
5	4·4
6	4·6
8	3·9
9	3·6
23	3·4
Oct. 17	4·0
18	4·5
19	5·3
21	5·2
22	5·1
25	5·7
26	5·1
27	2·8
Dec. 7	4·5
13	5·3
14	6·0
16	6·1

α Ursæ Minoris S. P.	
April 1	+ 88 26 5·0
2	4·3
12	4·6
13	5·6
15	4·3
20	4·8
22	5·4
23	6·4
6	5·0
28	6·5
29	4·7
May 1	4·1
2	4·3
5	4·2
6	4·3
7	6·2
10	5·8
12	4·8
13	4·6
14	5·1
18	6·1
19	5·8
26	4·5
July 6	5·3
7	4·5
13	5·3
18	4·5
20	4·5

α Ursæ Minoris S.P.	
	° ′ ″
Aug. 4	+ 88 26 4·7
8	5·4
10	5·2
11	3·7
13	5·1
23	5·0
25	4·4
27	5·5
29	5·4
31	6·0
Sept. 1	5·5
2	5·3
6	5·2
13	5·3
14	4·4
29	5·7
30	5·4
Oct. 3	5·7
4	5·4
6	4·6
7	5·1
8	5·3
14	4·6
16	4·5
18	5·1
23	5·3
24	4·8
26	5·7
Dec. 2	4·2
3	5·1

μ Piscium.	
Dec. 16	+ 5 17 46·1

ι Piscium.	
Dec. 16	+ 4 39 18·3

α Arietis.	
Feb. 16	22 40 60·8
17	60·7
22	60·0
Mar. 9	59·9
Oct. 24	59·5

α Arietis.	
	° ′ ″
Nov. 28	+ 22 40 59·8
Dec. 7	59·1
13	59·4
19	59·6

ξ¹ Ceti.	
Oct.. 24	+ 8 4 26·0

ξ¹ Arietis.	
Oct. 25	+ 9 51 51·5
Nov. 28	50·9

ε Arietis.	
Oct. 25	+ 20 40 46·2

α Ceti.	
Mar. 4	+ 3 26 30·3
Dec. 12	30·4
14	30·4
19	30·7
31	30·2

δ Arietis.	
Dec. 19	+ 19 6 4·9

α Persei.	
Mar. 29	+ 49 16 14·9
April 6	14·1
13	14·2
May 6	14·5
Dec. 14	14·7
19	15·5
31	15·0

ε Tauri.	
Jan. 27	+ 18 48 40·0

α Tauri.

	° ′ ″
Jan. 22	+ 16 10 22·4
27	23·4
Mar. 24	22·5
April 6	22·8
13	23·1
27	22·7
29	22·7
July 11	22·4
Dec. 21	22·7
22	23·8
31	21·8

α Aurigæ.

Jan. 15	+ 45 49 20·9
Mar. 23	19·4
April 4	19·3
22	19·8
26	20·2
May 2	20·9
12	19·5
25	19·4
28	19·0
30	19·2

α Aurigæ S. P.

July 6	+ 45 49 23·4
25	18·6
Aug. 1	22·1
8	20·5

β Orionis.

April 6	− 8 23 48·9
13	48·7
15	47·5
Sept. 2	49·2
Dec. 23	48·0

109 Tauri.

Jan. 28	+ 21 55 8·5

β Tauri.

Jan. 14	+ 28 27 39·7
28	39·7
Feb. 10	39·5
Mar. 23	39·8
April 15	43·1

β Tauri.

	° ′ ″
April 27	+ 28 27 41·7
May 2	40·7
6	40·4
Sept. 2	40·6

* R A. $5^h\,41^m\,22^s$.

Jan. 15.	+ 36 14 52·2

136 Tauri.

Dec. 21	+ 27 33 56·8

α Orionis.

Jan. 14	+ 7 22 10·2
16	9·4
28	11·0
Mar. 23	10·7
April 20	10·4
22	11·3
May 6	10·5
12	12·3
Aug. 8	11·2

* R.A. $5^h\,48^m\,31^s$.

Jan. 15	+ 24 46 26·5

* R.A. $6^h\,20^m\,53^s$.

Jan. 9	+ 32 16 16·9

51 (Hevelii) Cephei.

Dec. 23	+ 87 15 51·5

51 (Hevelii) Cephei S. P.

Aug. 1	+ 87 15 52·2
4	53·5
7	53·7
9	53·0
11	52·9
18	52·9

Piazzi VI. 126.

Feb. 17	+ 32 33 48·3

* R.A. $6^h\,22^m\,55^s$.

	° ′ ″
Feb. 22	+ 33 8 10·6

Piazzi VI. 142.

Feb. 9	+ 31 33 12·7

Piazzi VI. 150.

Feb. 22	+ 31 36 5·0

* R. A. $6^h\,32^m\,6^s$.

Jan. 7	+ 1 5 41·1

α Canis Majoris.

Jan. 9	− 16 29 48·0
Feb. 6	47·2
9	47·6
22	48·2
Mar. 2	48·7
14	48·4
17	48·0
22	46·9
25	49·1
26	48·9
29	48·1
April 22	47·9
25	47·1
27	49·3
28	47·5
May 2	48·7
7	48·4

* R. A. $6^h\,44^m\,33^s$.

Feb. 9	+ 39 45 6·3
Mar. 2	4·8

* R. A. $6^h\,47^m\,32^s$.

Jan. 14	+ 39 44 45·7
16	45·7
Feb. 17	44·4

* R. A. $7^h\,14^m\,23^s$.

Mar. 2	+ 16 59 3·7
27	3·5

ι Geminorum.

	° ′ ″
Mar. 25	+ 28 7 0·2
26	0·4

* R. A. $7^h\,16^m\,52^s$.

Feb. 6	+ 17 8 38·2
Mar. 27	36·4

α Geminorum following.

Feb. 5	+ 32 14 26·6
Mar. 2	24·7
24	24·7
25	24·5
26	25·0
27	26·0
May 26	25·2
Oct. 2	24·8

α Canis Minoris.

Mar. 12	+ 5 38 22·9
24	22·2
25	21·7
26	20·8
27	23·0
May 28	21·4
30	21·5
Oct. 2	22·5

β Geminorum.

Feb. 5	+ 28 24 56·1
Mar. 19	56·2
May. 26	56·3
30	56·2
July 31	54·4
Aug. 14	57·4
Oct. 2	55·8
Dec. 23	55·3

λ Cancri.

Mar. 27	+ 24 31 57·9

α Hydræ.

Mar. 19	− 7 57 4·9
April 23	5·1
24	4·4
Oct. 4	5·6

θ Ursæ Majoris S. P.

	°	′	″
Aug. 11	+ 52	25	12·6
12			13·4
18			11·5
22			11·6
Sept. 13			13·7

α Leonis.

Mar. 18	+ 12	45	57·3
19			57·2
April 24			57·2
July 4			56·6
6			57·0
Oct. 4			56·7

ϱ Leonis.

Mar. 2	+ 10	8	52·9
April 25			54·4

α Ursæ Majoris.

April 1	+ 62	38	4·5
20			4·2
21			4·1
30			3·8
May 1			4·7
3			5·4
7			4·5
11			3·8
12			4·0
July 4			3·7
6			4·3
14			4·0
18			4·4
20			4·7
30			4·1
Aug. 8			3·7
9			4·1
10			3·0
23			4·5
Sept. 8			4·7
Nov. 30			4·8

α Ursæ Majoris S. P.

Sept. 24	+ 62	38	4·2
Oct. 19			4·6

χ Leonis.

Mar. 29	+ 8	13	16·2
30			16·3

ι Leonis.

	°	′	″
Mar. 2	+ 11	25	54·2
3			54·8

ν Virginis.

Mar. 30	+ 7	26	53·3

β Leonis.

Mar. 3	+ 15	29	19·5
4			19·3
14			18·5
15			17·3
April 1			18·6
28			19·5
Aug. 8			19·3

γ Ursæ Majoris.

Mar. 30	+ 54	36	23·8
April 21			24·2
23			23·0
May 3			24·1
7			24·0
11			23·7
14			24·3
July 18			24·1
Aug. 10			22·1

γ Ursæ Majoris S. P.

Oct. 18	+ 54	36	22·2
19			22·2
22			23·3
25			25·0
27			24·9

7 Virginis.

Mar. 30	+ 4	34	6·4

ο Virginis.

Mar. 3	+ 9	38	39·1
4			39·4
April 28			39·9

γ Virginis.

April 30	– 0	32	55·5
May 1			55·3
6			56·7

δ Virginis.

	°	′	″
April 28	+ 4	17	25·0
29			24·2

α Virginis.

April 2	– 10	18	12·2
15			10·3
20			10·2
May 14			11·3
18			10·3
July 6			9·2
Aug. 8			9·2
Dec. 2			10·8

ζ Ursæ Majoris.

April 12	+ 55	46	60·8
26			60·3
28			59·7
May 1			61·4
19			61·9
Aug. 10			60·4
11			62·2
18			61·4
Sept. 14			60·7
Oct. 26			60·8
Dec. 3			61·9

ζ Ursæ Majoris S. P.

Oct. 25	+ 55	47	0·4
26			1·5
Dec. 7			1·9
14			1·3

η Ursæ Majoris.

April 2	+ 50	8	2·8
12			2·7
21			3·5
25			3·5
May 1			3·2
5			3·0
10			3·6
18			4·0
19			2·4
26			2·5
July 13			3·6
Aug. 9			3·5
18			3·9
19			3·8
26			1·9

η Ursæ Majoris.

	°	′	″
Sept. 2	+ 50	8	3·8
Oct. 26			2·3
Dec. 3			3·2

α Bootis.

Jan. 12	+ 20	2	21·9
April 25			21·4
29			21·6
May 5			21·1
10			22·2
23			23·0
Aug. 18			21·5
19			22·1
20			21·8
Sep. 1			22·0
2			22·5
6			21·1
14			21·3
16			22·3
Oct. 8			22·2
19			21·6
25			21·2

α^2 Libræ.

May 23	– 15	21	18·8

β Ursæ Minoris.

May 23	+ 74	49	32·8
28			31·6
29			31·9
July 15			32·6
19			31·1
Sept. 2			32·5
16			33·0
30			32·5
Oct. 4			31·8
17			32·6
25			32·2
27			31·6
Nov. 5			32·0
Dec. 14			32·8
15			32·7

β Ursæ Minoris S. P.

May 2	+ 74	49	32·0
Aug. 4			32·5
Dec. 10			32·5
13			31·7

α Coronæ borealis.	
	° ′ ″
Aug. 29	+ 27 16 15·5
Oct. 4	15·5
Nov. 14	16·0

α Serpentis.	
May 29	+ 6 56 48·6
Aug. 29	47·9

α Scorpii.	
July 19	− 26 3 35·3
Aug. 5	38·2

α Herculis.	
May 29	+ 14 34 58·4
July 22	57·2
Aug. 5	58·8
17	58·6

β Draconis.	
Aug. 11	+ 52 25 32·1
12	31·8
13	31·5
17	31·6
18	32·5

α Ophiuchi.	
July 25	+ 12 41 6·8
Aug. 1	7·2
4	7·0
Sept. 17	6·0
Oct. 19	8·0
24	7·5
31	6·0
Nov. 2	7·8
4	5·6
13	8·0
30	6·3
Dec. 1	6·6
9	5·7
15	6·8

γ Draconis.	
July 13	+ 51 30 39·5
18	38·9
20	39·9
25	39·3

γ Draconis.	
	° ′ ″
Aug. 1	+ 51 30 39·8
4	39·3
13	39·1
17	39·8
23	39·4
Oct. 19	40·4
20	39·7
27	39·9
Nov. 2	40·3
5	39·2
13	39·9
14	39·9
Dec. 1	40·1
3	40·0
8	40·2
10	39·8
13	40·1
16	39·7
17	40·4

δ Ursæ Minoris.	
July 25	+ 86 35 20·9
Aug. 1	20·5
7	21·5
9	20·9
11	21·5
12	20·9
16	19·4
17	19·6
18	21·7
22	20·0
23	20·7
Sept. 2	21·0
6	19·7
15	20·5
Oct. 19	21·1
20	21·6
24	20·7
Nov. 2	21·2
3	21·3
13	20·6
14	21·2

δ Ursæ Minor S. P.	
Jan. 9	+ 86 35 19·7
14	20·2
15	19·9
16	19·5
Feb. 17	20·1
22	19·2

δ Ursæ Minor. S. P.	
	° ′ ″
Feb. 23	+ 86 35 22·5
Mar. 2	19·9
14	21·1
17	20·7
22	20·2
23	19·1
25	20·9
29	20·1
Dec. 23	21·9

α Lyræ.	
July 25	+ 38 38 7·2
26	7·2
Aug. 4	6·0
7	7·3
13	5·8
Nov. 2	7·3
3	6·7
13	7·4
14	6·6
Dec. 8	6·7
10	6·2
13	6·2
16	6·4
17	7·9
21	7·4
23	7·6

γ Aquilæ.	
Aug. 7	+ 10 13 8·9
16	8·0
28	7·6
Sept. 1	7·9
6	7·2
19	9·2
20	8·5

α Aquilæ.	
Jan. 9	+ 8 26 26·3
15	26·4
Aug. 11	27·4
Sept. 16	26·0
Dec. 8	26·3
9	25·7
10	25·5
16	26·0

β Aquilæ.	
Aug. 7	+ 6 0 8·6

β Aquilæ.	
	° ′ ″
Aug. 16	+ 6 0 8·9
28	8·7
Sept. 1	9·2
17	9·1
19	9·5
20	9·6

α^2 Capricorni.	
Aug 11	− 13 2 52·1
12	50·2
28	50·1
Sept. 17	50·0
20	51·6
30	50·7

λ Ursæ Minoris.	
July 30	+ 88 48 56·5
Aug. 1	58·5
7	57·7
9	57·1
11	57·8
12	57·8
Sept. 1	57·0
16	58·3

λ Ursæ Minoris S. P.	
Feb. 13	+ 88 48 57·8
Mar. 19	56·5
26	58·7
27	59·1
31	57·8

α Cygni.	
Jan. 9	+ 44 41 51·7
16	51·5
Feb. 5	51·5
July 30	50·8
Aug. 1	50·7
24	51·1
Sept. 28	51·6
Oct. 5	50·5
Dec. 9	48·8
24	52·1

α Cygni S. P.	
April 23	+ 44 41 51·4

α Cephei.

			°	′	″
Aug.	12	+	61	53	33·0
	22				34·7
Sept.	13				33·3
	21				33·9
	24				33·5
	28				32·8
Oct.	5				33·3
	8				32·8
Dec.	21				34·3

α Cephei S. P.

April	23	+	61	53	33·5
	24				33·2

β Cephei.

Sept.	5	+	69	50	30·3
	6				30·5

β Cephei.

			°	′	″
Sept.	24	+	69	50	31·0
	28				31·3
	30				31·1
Oct.	4				30·9
	5				30·0
	8				29·8
	21				30·4
	25				30·3

β Cephei S. P.

April	23	+	69	50	30·4
	24				29·9

α Aquarii.

Aug.	12	–	1	6	48·9
	16				48·6
	22				47·7

α Aquarii.

			°	′	″
Sept.	5	–	1	6	48·3
	13				48·8
	21				48·8
	24				48·5
	26				49·8
Dec.	24				49·6

α Piscis Australis.

Aug.	24	–	30	29	24·7
Sept.	13				17·4
	17				31·1
	20				26·3
	21				24·1
	30				23·2
Oct.	25				25·4

α Pegasi.

			°	′	″
Jan.	15	+	14	19	27·4
Feb.	6				26·3
Aug.	22				28·8
	24				27·2
	25				27·0
	29				28·3
Sept.	5				26·9
	13				27·6
	15				27·7
	21				28·1
Oct.	17				27·5

α Andromedæ.

Jan.	15	+	28	11	5·7
Feb.	1				5·2
	11				5·3
	12				4·7
Oct.	17				4·8
	21				7·5

CATALOGUE

OF THE

MEAN RIGHT ASCENSIONS AND DECLINATIONS OF THE STARS OBSERVED,

For January 1, 1836.

Catalogue of the Mean Right Ascensions and Declinations of the Stars observed, reduced to January 1, 1836.

No. of Astronom. Society's Catalogue.	Star.	Mean Right Ascension.	Mean Declination.	No. of Observations.	
				Right Ascension.	Declination.
		h. m. s.	° ′ ″		
13	γ Pegasi	0 4 47·87	+ 14 16 16·3	35	2
28	44 Piscium	0 16 59·82	....	1	...
60	α Cassiopeæ	0 31 14·58	+ 55 38 12·7	10	3
60	.... S. P.	14·49	12·6	14	3
81	δ Piscium	....	+ 6 41 28·3	...	1
86	20 Ceti	0 44 37·62	....	3	...
103	ε Piscium	0 54 26·56	....	1	...
116	80 Piscium	0 59 55·60	....	1	...
115	α Ursæ Minoris	1 1 5·69	+ 88 26 4·6	96	43
115	.... S. P.	6·12	5·0	95	58
162	μ Piscium	1 21 36·04	+ 5 17 46·1	1	1
184	ν Piscium	1 32 54·18	+ 4 39 18·3	1	1
189	ο Piscium	1 36 44·37	....	1	...
227	α Arietis	1 57 56·58	+ 22 40 59·9	32	9
237	ξ^1 Ceti	2 4 18·98	+ 8 4 26·0	2	1
249	ξ^1 Arietis	2 16 2·20	+ 9 51 51·2	3	2
292	38 Arietis	2 36 1·96	....	2	...
302	π Arietis	2 40 9·10	....	4	...
319	ε Arietis	2 49 50·74	+ 20 40 46·2	3	1
332	α Ceti	2 53 42·84	+ 3 26 30·4	13	5
348	δ Arietis	3 2 15·77	+ 19 6 4·9	4	1
354	ζ Arietis	3 5 29·13	....	1	...
365	α Persei	3 12	+ 49 16 14·7	...	7
365	.... S. P.	39·18	....	7	...
369	64 Arietis	3 14 38·24	....	1	...
414	η Tauri	3 37 44·76	....	1	...
448	37 Tauri	3 55 0·60	....	3	...
471	ω^2 Tauri	4 7 39·58	....	1	...
488	δ^1 Tauri	4 13 29·28	....	1	...
507	ε Tauri	4 19 2·59	+ 18 48 40·0	1	1
528	α Tauri	4 26 31·03	+ 16 10 22·8	17	11
543	τ Tauri	4 32 24·58	....	2	...
585	ι Tauri	4 53 18·04	....	1	...
611	α Aurigæ	5 4 35·06	+ 45 49 19·8	59	10
611	.... S. P.	35·09	21·2	8	4
619	β Orionis	5 6 39·53	− 8 23 48·5	32	5
623	109 Tauri	5 9 25·69	+ 21 55 8·5	1	1
642	β Tauri	5 15 55·77	+ 28 27 40·6	55	9
673	α Leporis	5 25 29·97	....	18	...
684	ζ Tauri	5 27 50·84	....	2	...
......	Piazzi V. 214	5 37 51·85	....	1	...
......	⁎ 9^{m}	5 41 21·40	+ 36 14 52·2	1	1
722	136 Tauri	5 43 1·14	+ 27 33 56·8	1	1
734	α Orionis	5 46 17·69	+ 7 22 10·8	54	9
......	⁎ $7{\cdot}8^{m}$	5 48 31·72	+ 24 46 26·5	1	1
774	κ Aurigæ	6 4 55·79	....	2	...
775	η Geminorum	6 4 58·67	....	1	...

No. of Astronom. Society's Catalogue.	STAR.	Mean Right Ascension.	Mean Declination.	No. of Observations.	
				Right Ascension.	Declination.
		h. m. s.	° ′ ″		
790	μ Geminorum	6 13 2·32	....	3	...
......	∗ 8^{m} R. A. $6^{h}\ 20^{m}\ 53^{s}$	....	+ 32 16 16·9	...	1
......	51 (Hevelii) Cephei	....	+ 87 15 51·5	...	1
......	.... S. P.	....	53·0	...	6
808	Piazzi VI. 126	....	+ 32 33 48·3	...	1
......	∗ 7^{m} R. A. $6^{h}\ 22^{m}\ 55^{s}$	....	+ 33 8 10·6	...	1
......	Piazzi VI. 142	....	+ 31 33 12·7	...	1
......	Piazzi VI. 150	....	+ 31 36 5·0	...	1
......	∗ $8{\cdot}9^{m}$ R. A. $6^{h}\ 32^{m}\ 6^{s}$	....	+ 1 5 41·1	...	1
831	ε Geminorum	6 33 50·41	....	1	...
838	α Canis Majoris	6 37 55·22	− 16 29 48·1	51	17
......	∗ 8^{m}	6 44 29·82	+ 39 45 5·6	3	2
......	∗ 7^{m}	6 47 30·25	+ 39 44 45·3	3	3
870	ω^{1} Geminorum	6 52 24·80	....	1	...
881	τ Geminorum	7 0 41·55	....	1	...
900	δ Geminorum	7 10 19·30	....	3	...
......	∗ 8^{m}	7 14 21·83	+ 16 59 3·6	2	2
911	ι Geminorum	7 15 31·76	+ 28 7 0·3	2	2
......	∗ $8{\cdot}9^{m}$	7 16 51·20	+ 17 8 37·3	4	2
927	(a) α Geminorum	7 24 7·24	+ 32 14 25·2	21	8
......	∗ D + 48° 22′	7 27 23·23	....	1	...
941	α Canis Minoris	7 30 42·68	+ 5 38 22·0	37	8
948	β Geminorum	7 35 16·20	+ 28 24 56·0	43	8
963	φ Geminorum	7 43 27·13	....	2	...
984	6 Cancri	7 53 26·04	....	3	...
1012	λ Cancri	8 10 46·30	+ 24 31 57·9	2	1
1060	γ Cancri	8 33 47·09	....	3	...
1092	ι Ursæ Majoris	8 47 56·41	....	1	...
1109	ξ Cancri	8 59 55·17	....	4	...
1130	83 Cancri	9 9 49·02	....	2	...
1147	α Hydræ	9 19 31·63	− 7 57 5·0	11	4
1152	θ Ursæ Majoris S. P.	....	+ 52 25 12·6	...	5
1153	λ Leonis	9 22 20·98	....	2	...
1174	ψ Leonis	9 34 47·51	....	1	...
1206	η Leonis	9 58 22·80	....	2	...
1209	α Leonis	9 59 37·79	+ 12 45 57·0	20	6
1228	γ Leonis	10 10 55·14	....	4	...
1254	ϱ Leonis	10 24 10·21	+ 10 8 53·6	1	2
1279	52 Leonis	10 37 43·54	....	2	...
1305	α Ursæ Majoris	10 53 32·35	+ 62 38 4·2	13	21
1305	.... S. P.	32·60	4·4	12	2
1310	χ Leonis	10 56 33·05	+ 8 13 16·2	3	2
1325	73 Leonis	11 7 16·80	....	2	...
1338	ι Leonis	11 15 22·19	+ 11 25 54·5	2	2
1371	ν Virginis	11 37 25·66	+ 7 26 53·3	2	1
1375	β Leonis	11 40 41·34	+ 15 29 18·9	33	7
1376	β Virginis	11 42 9·25	....	1	...
1379	γ Ursæ Majoris	11 45 10·15	+ 54 36 23·7	18	9

(a) The Right Ascension is of the middle of the two Stars; the Declination, of the following. Observed difference of Right Ascension of the two Stars = $0^{s}{\cdot}51$.

No. of Astronom. Society's Catalogue.	STAR.	Mean Right Ascension.	Mean Declination.	No. of Observations.	
				Right Ascension.	Declination.
		h. m. s.	° ′ ″		
1379	γ Ursæ Majoris S. P.	11 45 10·32	+ 54 36 23·5	11	5
1385	7 Virginis	11 51 32·87	+ 4 34 6·4	1	1
1392	ο Virginis	11 56 51·11	+ 9 38 39·5	3	3
1415	η Virginis	12 11 31·02	...	3	...
1417	16 Virginis	12 12 1·30	...	2	...
1465	γ Virginis	12 33 21·08	− 0 32 55·8	5	3
1491	δ Virginis	12 47 20·65	+ 4 17 24·6	4	2
1511	θ Virginis	13 1 27·79	...	4	...
1533	α Virginis	13 16 33·69	− 10 18 10·4	23	8
1534	ζ Ursæ Majoris	13 17 18·48	+ 55 47 1·0	8	11
1534	S. P.	18·39	1·3	7	4
1545	74 Virginis	13 23 26·63	...	1	...
1556	82 Virginis	13 32 0·68	...	2	...
1575	η Ursæ Majoris	13 41 4·02	+ 50 8 3·2	11	18
1575	S. P.	4·10	...	6	...
1615	κ Virginis	14 4 9·50	...	4	...
1619	ι Virginis	14 7 25·42	...	1	...
1620	α Bootis	14 8 11·00	+ 20 2 21·8	54	17
1624	λ Virginis	14 10 14·97	...	3	...
1681	α² Libræ	14 41 49·02	− 15 21 18·8	13	1
1691	ξ² Libræ	14 47 52·70	...	1	...
1700	β Ursæ Minoris	14 51 15·74	+ 74 49 32·2	6	15
1700	S. P.	...	32·2	...	4
1721	ι¹ Libræ	15 2 53·26	...	2	...
1764	γ¹ Libræ	15 26 21·77	...	1	...
1770	α Coronæ borealis	15 27 44·78	+ 27 16 15·7	35	3
1787	η Libræ	15 34 51·37	...	1	...
1791	α Serpentis	15 36 11·70	+ 6 56 48·2	23	2
1811	θ Libræ	15 44 29·74	...	2	...
1885	α Scorpii	16 19 21·89	− 26 3 36·8	4	2
1970	α Herculis	17 7 10·34	+ 14 34 58·2	25	4
2016	β Draconis	...	+ 52 25 31·9	...	5
2017	α Ophiuchi	17 27 19·46	+ 12 41 6·8	40	14
2035	ι Herculis	17 34 50·36	...	12	...
2035	S. P.	50·16	...	10	...
2071	γ Draconis	17 52 47·99	+ 51 30 39·8	14	23
2096	μ¹ Sagittarii	18 3 57·46	...	2	...
2099	16 Sagittarii	18 5 27·36	...	1	...
2122	λ Sagittarii	18 17 50·60	...	1	...
2148	δ Ursæ Minoris	18 25 12·84	+ 86 35 20·8	70	21
2148	S. P.	11·90	20·3	32	15
2156	α Lyræ	18 31 23·18	+ 38 38 6·9	68	16
2156	S. P.	23·15	...	1	...
2180	σ Sagittarii	18 45 5·11	...	1	...
2196	ζ Sagittarii	18 52 9·67	...	1	...
2208	τ Sagittarii	18 56 41·66	...	1	...
2290	52 Sagittarii	19 26 43·35	...	3	...
2317	γ Aquilæ	19 38 27·76	+ 10 13 8·2	34	7
2329	α Aquilæ	19 42 46·82	+ 8 26 26·2	45	8
2339	59 Sagittarii	19 46 52·18	...	2	...
2340	β Aquilæ	19 47 15·41	+ 6 0 9·1	28	7
2352	62 Sagittarii	19 52 33·84	...	1	...

No. of Astronom. Society's Catalogue.	STAR.	Mean Right Ascension.	Mean Declination.	No. of Observations.	
				Right Ascension.	Declination.
		h. m. s.	° ′ ″		
2388	α^2 Capricorni	20 8 56·97	– 13 2 50·8	12	6
2393	σ Capricorni	20 9 55·17	………………	1	…
……	λ Ursæ Minoris	20 25 56·77	+ 88 48 57·6	12	8
……	S. P.	55·96	58·0	2	5
2444	α Cygni	20 35 50·50	+ 44 41 51·0	23	10
2444	S. P.	………………	51·4	…	1
2445	ψ Capricorni	20 36 22·04	………………	1	…
2497	η Capricorni	20 55 3·18	………………	1	…
2536	α Cephei	21 14 39·78	+ 61 53 33·5	10	9
2536	S. P.	………………	33·4	…	2
2543	ζ Capricorni	21 17 17·25	………………	3	…
2559	β Cephei	21 26 31·10	+ 69 50 30·6	10	10
2559	S. P.	………………	30·2	…	2
2560	ε Capricorni	21 27 52·94	………………	1	…
2566	γ Capricorni	21 30 59·53	………………	2	…
2586	δ Capricorni	21 37 58·56	………………	1	…
2619	α Aquarii	21 57 21·52	– 1 6 48·8	17	9
2655	θ Aquarii	22 8 10·09	………………	1	…
2726	τ^2 Aquarii	22 40 53·86	………………	1	…
2735	δ Aquarii	22 45 56·20	………………	3	…
2741	α Piscis Australis	22 48 34·37	– 30 29 24·6	9	7
2755	α Pegasi	22 56 35·73	+ 14 19 27·5	27	11
2772	φ Aquarii	23 5 49·42	………………	1	…
2781	ψ^3 Aquarii	23 10 25·47	………………	2	…
2864	27 Piscium	23 50 16·21	………………	1	…
2869	29 Piscium	23 53 25·13	………………	1	…
2870	30 Piscium	23 53 32·59	………………	1	…
2877	33 Piscium	23 56 56·09	………………	1	…
2881	α Andromedæ	23 59 55·40	+ 28 11 5·5	42	6

REDUCED OBSERVATIONS

OF

THE SUN, MOON, AND PLANETS.

1836.

Observed Sidereal Time of the Sun's Diameter passing the Meridian.

Date.	Observed Time.	Difference from Nautical Almanac.
1836,	m. s.	s.
January 9	2 21·28	+ 0·18
13	2 20·72	+ 0·24
15	2 20·14	− 0·02
16	2 19·95	+ 0·01
19	2 19·52	+ 0·16
22	2 18·90	+ 0·16
25	2 18·02	− 0·06
26	2 17·80	− 0·06
29	2 17·14	− 0·06
30	2 17·14	+ 0·18
February 1	2 16·44	− 0·08
2	2 16·42	+ 0·14
3	2 16·16	+ 0·12
6	2 15·46	+ 0·10
10	2 14·44	− 0·02
11	2 14·36	+ 0·12
20	2 12·42	+ 0·06
22	2 12·02	+ 0·04
23	2 11·70	− 0·10
25	2 11·36	− 0·10
27	2 11·10	− 0·02
29	2 10·70	− 0·10
March 3	2 10·44	+ 0·06
4	2 10·46	+ 0·22
5	2 10·24	+ 0·12
7	2 9·94	+ 0·10
8	2 9·86	+ 0·06
9	2 9·76	+ 0·10
10	2 9·44	− 0·12
11	2 9·38	− 0·08
14	2 9·34	+ 0·12
15	2 9·14	0·00
16	2 9·10	+ 0·02
19	2 9·14	+ 0·22
22	2 8·94	+ 0·12
26	2 8·48	− 0·30
29	2 8·76	− 0·04
31	2 8·96	+ 0·12
April 1	2 9·00	+ 0·12
4	2 8·88	− 0·12
6	2 9·14	+ 0·02
8	2 9·18	− 0·06
11	2 9·50	+ 0·02
12	2 9·62	+ 0·06
15	2 9·76	− 0·10
18	2 10·20	+ 0·02
20	2 10·40	− 0·02
27	2 11·62	+ 0·22
29	2 11·41	− 0·29
May 2	2 12·20	+ 0·04
6	2 12·76	− 0·04
7	2 13·04	+ 0·08
9	2 13·18	− 0·10
1836,	m. s.	s.
May 10	2 13·70	+ 0·26
11	2 13·54	− 0·08
12	2 13·90	+ 0·12
14	2 14·12	+ 0·02
15	2 14·52	+ 0·26
16	2 14·32	− 0·10
18	2 14·74	0·00
19	2 14·90	0·00
21	2 15·02	− 0·18
23	2 15·46	− 0·04
24	2 15·60	− 0·06
25	2 15·98	+ 0·18
26	2 16·00	+ 0·08
27	2 16·16	+ 0·10
28	2 16·12	− 0·08
30	2 16·42	− 0·02
31	2 16·50	− 0·06
June 1	2 16·68	0·00
2	2 16·74	− 0·04
3	2 16·91	+ 0·03
7	2 17·40	+ 0·16
8	2 17·26	− 0·06
10	2 17·46	0·00
12	2 17·58	0·00
14	2 17·64	− 0·02
15	2 17·62	− 0·08
16	2 17·78	+ 0·06
17	2 17·70	− 0·04
20	2 17·96	+ 0·18
23	2 17·76	+ 0·02
24	2 17·66	− 0·06
28	2 17·58	+ 0·02
29	2 17·58	+ 0·06
July 2	2 17·28	− 0·02
4	2 17·32	+ 0·18
6	2 16·88	− 0·08
7	2 16·94	+ 0·08
8	2 16·88	+ 0·14
12	2 16·36	+ 0·10
18	2 15·59	+ 0·15
19	2 15·22	− 0·06
20	2 15·23	+ 0·11
23	2 14·58	− 0·06
27	2 14·14	+ 0·16
August 2	2 12·94	0·00
5	2 12·50	+ 0·06
6	2 12·23	− 0·03
8	2 11·83	− 0·09
9	2 11·68	− 0·08
10	2 11·24	− 0·34
11	2 11·42	0·00
12	2 11·40	+ 0·14
13	2 11·08	− 0·02
15	2 10·92	+ 0·12

Date.	Observed Time.	Difference from Nautical Almanac.	Date.	Observed Time.	Difference from Nautical Almanac.
1836,	m. s.	s.	1836,	m. s.	s.
August 16	2 10·54	– 0·10	October 25	2 12·18	– 0·14
19	2 10·58	+ 0·38	27	2 12·68	– 0·06
23	2 9·60	– 0·08	28	2 12·92	– 0·04
24	2 9·56	+ 0·02	29	2 13·14	– 0·04
26	2 9·47	+ 0·15	31	2 13·48	– 0·14
29	2 9·08	+ 0·08			
31	2 8·57	– 0·23	November 4	2 14·54	0·00
			5	2 14·66	– 0·10
September 1	2 8·79	+ 0·09	7	2 15·20	– 0·04
2	2 8·60	– 0·02	14	2 16·86	– 0·04
5	2 8·60	+ 0·20	17	2 17·54	– 0·06
12	2 7·98	– 0·10	30	2 20·28	– 0·02
17	2 7·94	– 0·08			
28	2 8·24	– 0·18	December 1	2 20·16	– 0·32
30	2 8·61	+ 0·03	3	2 20·74	– 0·06
			7	2 21·39	+ 0·01
October 4	2 8·93	– 0·01	9	2 21·64	0·00
7	2 9·16	– 0·12	10	2 21·74	0·00
8	2 9·24	– 0·16	13	2 22·06	+ 0·04
12	2 10·02	+ 0·06	15	2 22·24	+ 0·06
14	2 10·14	-- 0·14	16	2 22·14	– 0·10
15	2 10·14	– 0·30	17	2 22·54	+ 0·24
18	2 10·91	– 0·05	20	2 22·10	– 0·28
19	2 11·25	+ 0·11	21	2 22·37	– 0·03
20	2 11·22	– 0·10	23	2 22·32	– 0·08

Mean Difference from Nautical Almanac by 153 observations = 0^{s}·00.

OBSERVED RIGHT ASCENSIONS AND DECLINATIONS OF THE SUN.

Date.	RIGHT ASCENSION.			DECLINATION.			
	Limb observed.	Right Ascension of Centre.	Difference from Nautical Almanac.	Limb observed.	Parallax in Declination.	Declination of Centre.	Difference from Nautical Almanac.
1836,		h. m. s.	s.		″	° ′ ″	″
Jan. 9	I. & II.	19 19 29·60	– 0·13	S.	+ 8·5	– 22 12 11·6	+ 2·4
13	I. & II.	19 36 52·33	– 0·11	....	....	....	....
15	I. & II.	19 45 30·19	– 0·04	....	....	....	....
16	I. & II.	19 49 48·14	– 0·01	N.	8·5	– 21 3 50·3	+ 2·0
19	I. & II.	20 2 37·68	– 0·08	....	....	....	....
22	I. & II.	20 15 20·78	+ 0·13	....	....	....	....
25	I. & II.	20 27 56·54	+ 0·10	....	....	....	....
26	I. & II.	20 32 6·67	– 0·07	....	....	....	....
29	I. & II.	20 44 32·66	+ 0·01	....	....	....	....
30	I. & II.	20 48 39·73	+ 0·11	S.	8·3	– 17 49 59·3	– 0·2
31	....	....	....	N.	8·3	– 17 33 33·5	– 0·3
Feb. 1	I. & II.	20 56 51·00	– 0·06	....	....	....	....
2	I. & II.	21 0 55·48	– 0·05	....	....	....	....
3	I. & II.	21 4 59·20	+ 0·01	....	....	....	....
4	II.	21 9 2·20	+ 0·19	....	....	....	....
6	I. & II.	21 17 5·20	– 0·02	S.	8·2	– 15 48 41·4	– 0·2

Date.	RIGHT ASCENSION.			DECLINATION.			
	Limb observed.	Right Ascension of Centre.	Difference from Nautical Almanac.	Limb observed.	Parallax in Declination.	Declination of Centre.	Difference from Nautical Almanac.
1836,		h. m. s.	s.		″	° ′ ″	″
Feb. 7	....	....	....	N.	+8·2	− 15 30 13·7	− 0·3
10	I. & II.	21 33 2·21	+ 0·07	....	....	....	....
11	I. & II.	21 36 59·44	+ 0·01	....	....	....	....
12	I.	21 40 55·84	− 0·12	....	....	....	....
17	I.	22 0 27·40	− 0·06	....	....	....	....
20	I. & II.	22 12 1·70	+ 0·04	S.	8·0	− 11 8 37·8	+ 2·4
22	I. & II.	22 19 41·15	+ 0·12	....	....	....	....
23	I. & II.	22 23 29·77	+ 0·03	....	....	....	....
25	I. & II.	22 31 5·23	+ 0·03	....	....	....	....
27	I. & II.	22 38 38·36	+ 0·11	....	....	....	....
29	I. & II.	22 46 8·98	− 0·01	....	....	....	....
Mar. 3	I. & II.	22 57 21·19	+ 0·02	....	....	....	....
4	I. & II.	23 1 4·32	+ 0·05	....	....	....	....
5	I. & II.	23 4 47·05	+ 0·13	N.	7·6	− 5 54 45·4	− 0·4
7	I. & II.	23 12 11·03	+ 0·02	....	....	....	....
8	I. & II.	23 15 52·63	+ 0·16	....	....	....	....
9	I. & II.	23 19 33·67	+ 0·07	....	....	....	....
10	I. & II.	23 23 14·35	− 0·05	....	....	....	....
11	I. & II.	23 26 54·95	+ 0·08	....	....	....	....
14	I. & II.	23 37 54·60	0·00	....	....	....	....
15	I. & II.	23 41 34·07	+ 0·06	....	....	....	....
16	I. & II.	23 45 13·23	+ 0·03	....	....	....	....
19	I. & II.	23 56 9·72	+ 0·15	S.	7·2	− 0 25 1·1	− 1·0
22	I. & II.	0 7 4·66	+ 0·07	....	....	....	....
25	II.	0 17 58·85	+ 0·13	....	....	....	....
26	I. & II.	0 21 36·66	0·00	S.	+ 6·9	+ 2 20 22·0	− 3·4
27	....	....	....	S.	6·9	+ 2 43 54·0	− 0·1
29	I. & II.	0 32 30·39	− 0·04	....	....	....	....
31	I. & II.	0 39 46·48	+ 0·04	....	....	....	....
April 1	I. & II.	0 43 24·66	+ 0·07	N.	6·6	+ 4 40 16·2	− 3·0
4	I. & II.	0 54 19·72	− 0·05	....	....	....	....
6	I. & II.	1 1 37·34	− 0·12	....	....	....	....
8	I. & II.	1 8 56·24	+ 0·19	....	....	....	....
11	I. & II.	1 19 55·95	+ 0·05	....	....	....	....
12	I. & II.	1 23 36·39	− 0·05	....	....	....	....
15	I. & II.	1 34 40·05	− 0·01	....	....	....	....
18	I. & II.	1 45 46·98	+ 0·04	....	....	....	....
20	I. & II.	1 53 13·45	− 0·04	....	....	....	....
27	I. & II.	2 19 30·02	− 0·04	N.	5·6	+ 13 56 18·6	+ 1·8
29	I. & II.	2 27 4·80	+ 0·01	....	....	....	....
May 2	I. & II.	2 38 30·63	− 0·19	S.	5·5	+ 15 28 24·6	− 0·2
3	II.	2 42 20·64	+ 0·04	N.	5·4	+ 15 46 8·2	+ 2·4
6	I. & II.	2 53 53·34	− 0·02	S.	5·4	+ 16 37 34·3	− 0·3
7	I. & II.	2 57 45·51	+ 0·07	....	....	....	....
9	I. & II.	3 5 31·46	+ 0·08	N.	5·2	+ 17 26 35·5	− 0·1
10	I. & II.	3 9 25·20	− 0·03	S.	5·3	+ 17 42 22·7	+ 1·1
11	I. & II.	3 13 19·68	− 0·01	N.	5·2	+ 17 57 49·9	0·0
12	I. & II.	3 17 14·82	+ 0·10	S.	5·2	+ 18 12 59·4	− 1·0
14	I. & II.	3 25 6·63	+ 0·06	....	....	....	....
15	I. & II.	3 29 3·40	+ 0·02	N.	5·0	+ 18 56 41·3	+ 0·3
16	I. & II.	3 33 0·80	+ 0·05	....	....	....	....
17	II.	3 36 58·62	− 0·10	....	....	....	....
18	I. & II.	3 40 57·20	− 0·01	S.	5·0	+ 19 37 29·2	0·0
19	I. & II.	3 44 55·97	− 0·29	N.	4·9	+ 19 50 24·3	− 1·3
20	II.	3 48 55·65	− 0·20	....	....	....	....
21	I. & II.	3 52 56·02	+ 0·04	S.	4·9	+ 20 15 16·9	− 0·3
23	I. & II.	4 0 57·75	+ 0·01	N.	4·8	+ 20 38 45·1	− 0·5

Date.	Right Ascension.			Declination.			
	Limb observed.	Right Ascension of Centre.	Difference from Nautical Almanac.	Limb observed.	Parallax in Declination.	Declination of Centre.	Difference from Nautical Almanac.
1836,		h. m. s.	s.		"	° ′ "	"
May 24	I. & II.	4 4 59·30	− 0·06	S.	+ 4·9	+ 20 49 56·2	− 1·8
25	I. & II.	4 9 1·43	− 0·06	N.	4·8	+ 21 0 48·5	− 0·4
26	I. & II.	4 13 4·06	− 0·04	S.	4·8	+ 21 11 16·3	− 1·7
27	I. & II.	4 17 7·18	+ 0·01	N.	4·7	+ 21 21 24·8	− 0·3
28	I. & II.	4 21 10·76	+ 0·04	S.	4·8	+ 21 31 7·7	− 2·4
30	I. & II.	4 29 19·12	− 0·03	N.	4·7	+ 21 49 32·4	− 0·6
31	I. & II.	4 33 24·00	− 0·03	S.	4·7	+ 21 58 9·2	− 1·4
June 1	I. & II.	4 37 29·31	− 0·03	....	....	....	....
2	I. & II.	4 41 34·99	− 0·06	....	....	....	....
3	I. & II.	4 45 41·08	− 0·07	....	......	....	....
7	I. & II.	5 2 9·07	− 0·11	....	....	....	....
8	I. & II.	5 6 17·04	+ 0·03	....	....	....	....
10	I. & II.	5 14 33·36	− 0·18	....	....	....	....
12	I. & II.	5 22 51·04	+ 0·02	....	....	....	....
14	I. & II.	5 31 9·21	− 0·08	....	....	....	....
15	I. & II.	5 35 18·47	− 0·17	....	....	....	....
16	I. & II.	5 39 28·04	− 0·07	....	....	....	....
17	I. & II.	5 43 37·58	− 0·07	....	....	....	....
20	I. & II.	5 56 6·51	+ 0·02	....	....	....	....
23	I. & II.	6 8 35·16	+ 0·06	....	....	....	....
24	I. & II.	6 12 44·63	+ 0·14	....	....	....	....
25	I.	6 16 53·85	+ 0·08	....	....	....	....
27	II.	6 25 12·00	+ 0·11	....	....	....	....
28	I. & II.	6 29 20·65	− 0·06	....	....	....	....
29	I. & II.	6 33 29·35	+ 0·01	....	....	....	....
July 2	I. & II.	6 45 53·84	− 0·02	S.	4·6	+ 23 2 32·3	− 0·8
4	I. & II.	6 54 8·77	− 0·14	N.	4·5	+ 22 52 42·9	+ 1·2
6	I. & II.	7 2 22·82	+ 0·06	N.	4·6	+ 22 41 13·5	− 1·1
7	I. & II.	7 6 29·30	+ 0·10	S.	4·6	+ 22 34 54·7	− 0·7
8	I. & II.	7 10 35·31	+ 0·03	N.	4·6	+ 22 28 11·8	− 1·0
12	I. & II.	7 26 55·57	− 0·09	....	....	....	....
18	I. & II.	7 51 12·38	+ 0·18	S.	4·8	+ 21 0 11·1	− 1·8
19	I. & II.	7 55 13·23	+ 0·14	N.	4·8	+ 20 49 22·9	− 1·0
20	I. & II.	7 59 13·46	+ 0·03	S.	4·9	+ 20 38 14·6	+ 0·7
23	I. & II.	8 11 10·95	+ 0·04	....	....	....	....
27	I. & II.	8 26 59·20	− 0·05	N.	5·0	+ 19 10 36·0	0·0
Aug. 2	I. & II.	8 50 23·52	− 0·18	S.	5·2	+ 17 43 7·0	+ 0·8
5	I. & II.	9 1 57·97	− 0·02	....	....	....	....
6	I. & II.	9 5 48·22	− 0·03	....	....	....	....
8	I. & II.	9 13 27·20	+ 0·13	....	....	....	....
9	I. & II.	9 17 15·71	+ 0·08	N.	5·4	+ 15 47 55·5	+ 0·1
10	I. & II.	9 21 3·55	− 0·08	S.	5·5	+ 15 30 24·9	+ 0·3
11	I. & II.	9 24 50·82	− 0·24	N.	5·5	+ 15 12 37·7	− 0·9
12	I. & II.	9 28 37·97	+ 0·06	S.	5·6	+ 14 54 37·9	− 0·1
13	I. & II.	9 32 24·16	− 0·06	N.	5·5	+ 14 36 24·2	+ 1·1
15	I. & II.	9 39 54·97	− 0·19	S.	5·7	+ 13 59 10·5	− 1·2
16	I. & II.	9 43 39·86	+ 0·05	N.	5·6	+ 13 40 14·8	− 1·0
17	I.	9 47 23·98	+ 0·04	....	....	....	....
19	I. & II.	9 54 50·35	− 0·27	....	....	....	....
23	I. & II.	10 9 38·10	0·00	S.	6·0	+ 11 21 59·3	+ 0·4
24	I. & II.	10 13 18·76	− 0·07	N.	5·9	+ 11 1 28·6	+ 0·4
26	I. & II.	10 20 39·02	+ 0·01	S.	6·1	+ 10 19 56·6	+ 0·6
27	I.	10 24 18·54	+ 0·06	N.	6·1	+ 9 58 56·6	+ 1·6
29	I. & II.	10 31 36·22	− 0·13	S.	6·2	+ 9 16 24·7	− 0·1
31	I. & II.	10 38 53·08	+ 0·16	....	....	....	....
Sept. 1	I. & II.	10 42 30·96	+ 0·22	N.	6·2	+ 8 11 33·0	0·0

Date.	RIGHT ASCENSION.			DECLINATION.			
	Limb observed.	Right Ascension of Centre.	Difference from Nautical Almanac.	Limb observed.	Parallax in Declination.	Declination of Centre.	Difference from Nautical Almanac.
1836,		h. m. s.	s.		″	° ′ ″	″
Sept. 2	I. & II.	10 46 8·39	+ 0·09	S.	+ 6·3	+ 7 49 39·5	+ 0·2
5	I. & II.	10 56 59·30	– 0·20	N.	6·4	+ 6 43 12·2	– 0·8
6	II.	11 1 36·15	+ 0·01	....	....	....	....
8	....	....	....	S.	6·6	+ 5 35 46·4	+ 0·3
12	I. & II.	11 22 12·40	– 0·07	N.	6·7	+ 4 4 31·0	– 0·6
17	I. & II.	11 40 9·77	– 0·19	S.	6·9	+ 2 8 52·4	– 1·8
28	I. & II.	12 19 43·70	– 0·08	N.	7·2	– 2 8 14·4	– 0·4
30	I. & II.	12 26 57·58	– 0·07	S.	7·3	– 2 54 55·9	+ 2·4
Oct. 4	I. & II.	12 41 29·00	– 0·06	N.	7·4	– 4 28 2·7	+ 1·0
6	II.	12 48 46·86	– 0·05	S.	7·5	– 5 14 19·4	– 0·4
7	I. & II.	12 52 26·29	– 0·16	N.	7·5	– 5 37 21·4	– 0·2
8	I. & II.	12 56 6·11	– 0·30	S.	7·6	– 6 0 18·4	+ 0·6
12	I. & II.	13 10 50·70	– 0·12	....	....	....	....
14	I. & II.	13 18 16·03	+ 0·02	....	....	....	....
15	I. & II.	13 21 59·36	– 0·05	N.	7·7	– 8 38 33·3	– 1·8
17	....	....	....	S.	7·8	– 9 22 44·7	– 1·9
18	I. & II.	13 33 12·86	– 0·11	....	....	....	....
19	I. & II.	13 36 58·60	– 0·07	N.	7·8	– 10 6 20·5	+ 0·4
20	I. & II.	13 40 44·75	– 0·23	N.	7·9	– 10 27 59·0	– 2·3
25	I. & II.	13 59 46·41	– 0·03	N.	8·0	– 12 13 27·1	– 0·4
27	I. & II.	14 7 27·80	– 0·19	S.	8·0	– 12 54 22·0	+ 0·5
28	I. & II.	14 11 19·77	– 0·14	N.	8·0	– 13 14 33·4	– 0·8
29	I. & II.	14 15 12·50	– 0·09	....	....	....	....
31	I. & II.	14 23 0·24	– 0·11	....	....	....	....
Nov. 4	I. & II.	14 38 45·55	– 0·12	S.	8·2	– 15 29 33·0	+ 1·0
5	I. & II.	14 42 43·84	– 0·24	N.	8·2	– 15 47 55·2	– 1·5
7	I. & II.	14 50 43·33	– 0·13	S.	8·2	– 16 23 45·3	+ 0·1
10	I.	15 2 48·82	– 0·08	N.	8·3	– 17 15 27·8	+ 0·2
14	I. & II.	15 19 7·83	– 0·18	S.	8·3	– 18 20 13·0	+ 0·4
17	I. & II.	15 31 31·03	– 0·03	....	....	....	....
30	I. & II.	16 26 33·32	+ 0·03	N.	8·5	– 21 43 31·8	– 2·5
Dec. 1	I. & II.	16 30 52·41	– 0·07	S.	8·5	– 21 52 52·8	+ 0·7
3	I. & II.	16 39 32·68	– 0·08	N.	8·5	– 22 10 28·1	– 1·9
7	I. & II.	16 57 0·22	– 0·21	S.	8·5	– 22 40 22·2	– 1·7
9	I. & II.	17 5 47·22	– 0·14	N.	8·5	– 22 52 41·6	– 3·3
10	I. & II.	17 10 11·56	+ 0·08	S.	8·5	– 22 58 7·1	– 0·6
13	I. & II.	17 23 25·87	– 0·17	N.	8·5	– 23 11 46·1	+ 0·4
15	I. & II.	17 32 17·14	– 0·07	....	....	....	....
16	I. & II.	17 36 43·09	– 0·06	S.	8·6	– 23 21 15·2	+ 1·3
17	I. & II.	17 41 9·18	– 0·09	N.	8·5	– 23 23 33·8	– 3·5
20	I. & II.	17 54 28·33	– 0·13	....	....	....	....
21	I. & II.	17 58 55·04	+ 0·03	S.	8·6	– 23 27 46·3	– 2·6
23	I. & II.	18 7 48·14	– 0·04	....	....	....	....

Date.	Right Ascension.			Declination.				
	Limb observed.	Right Ascension of Limb.	Difference from Naut. Almanac.	Limb observed.	Parallax in Declination.	Semidiameter.	Declination of Centre.	Difference from Naut. Almanac.
1836,		h. m. s.	s.		′ ″	′ ″	° ′ ″	″
Jan. 3	I.	6 54 8·31	− 0·22	N.	+ 26 46·9	− 14 50·1	+ 26 26 7·2	− 0·3
	II.	6 56 26·25	+ 0·04	......	....	....	....	....
4	II.	7 52 12·34	− 0·42	......	....	....	....	....
11	II.	13 51 20·94	− 0·52	S.	53 24·1	+ 16 0·7	− 8 41 9·0	− 1·3
13	II.	15 44 36·31	+ 0·26	......	....	....	....	....
22	I.	23 58 13·02	− 0·38	S.	49 55·7	+ 15 29·4	− 4 49 2·2	+ 0·8
24	I.	1 31 52·45	− 0·54	S.	42 13·3	+ 15 3·5	+ 6 45 25·3	− 5·1
27	I.	3 53 47·31	− 1·09	S.	31 36·0	+ 14 44·9	+ 20 44 14·9	− 8·6
28	I.	4 44 50·42	− 1·03	S.	29 9·2	+ 14 44·5	+ 23 49 8·5	− 7·2
29	I.	5 38 13·16	− 0·37	......	....	....	....	....
30	I.	6 33 25·40	− 0·04	......	....	....	....	....
Feb. 1	I.	8 25 13·08	− 0·16	N.	29 15·6	− 15 3·6	+ 23 57 56·8	− 4·2
2	II.	9 21 54·18	− 0·02	N.	32 10·6	− 15 11·4	+ 20 42 48·0	− 2·7
22	I.	2 44 46·19	− 0·55	S.	36 13·7	+ 14 55·7	+ 15 7 0·1	− 4·4
23	I.	3 33 21·10	− 0·60	S.	32 44·4	+ 14 49·5	+ 19 28 38·3	− 7·4
26	I.	6 10 49·82	− 0·39	N.	26 35·5	− 14 49·1	+ 26 37 36·8	− 6·5
Mar. 2	I.	10 43 18·52	− 0·15	N.	38 42·4	− 15 31·6	+ 13 14 59·1	− 3·5
3	II.	11 36 27·81	+ 0·05	N.	43 11·4	− 15 41·2	+ 7 28 9·5	− 2·7
4	......	....	....	S.	47 49·1	+ 15 49·4	+ 1 12 44·2	− 6·9
22	I.	4 2 13·48	− 0·59	......	....	....	....	....
23	I.	4 54 13·78	− 0·15	......	....	....	....	....
25	I.	6 43 3·18	− 0·32	N.	26 19·5	− 14 49·8	+ 26 58 7·5	− 4·1
26	I.	7 38 29·23	− 0·37	N.	27 15·8	− 14 56·1	+ 26 4 36·7	− 4·1
27	I.	8 33 26·45	− 0·02	N.	29 24·2	− 15 4·9	+ 23 50 41·4	− 3·4
29	I.	10 19 45·55	+ 0·09	N.	36 42·0	− 15 28·3	+ 15 45 3·3	− 6·3
30	I.	11 11 10·93	+ 0·22	N.	41 17·3	− 15 41·1	+ 10 14 7·0	− 5·4
April 2	II.	13 49 2·32	− 0·32	S.	54 10·0	+ 16 11·6	− 9 2 37·8	− 7·6
22	I.	7 16 6·79	− 0·54	N.	26 28·8	− 14 48·6	+ 26 44 29·3	− 3·6
23	I.	8 10 43·53	− 0·41	N.	28 4·2	− 14 55·0	+ 25 4 10·5	− 0·6
24	I.	9 4 11·77	− 0·31	N.	30 46·6	− 15 4·3	+ 22 8 18·5	− 1·1
25	......	....	....	N.	34 26·3	− 15 16·1	+ 18 4 13·9	− 2·2
26	I.	10 47 8·37	− 0·17	N.	38 48·3	− 15 30·0	+ 13 1 30·7	− 2·4
28	I.	12 28 7·66	− 0·17	N.	48 15·7	− 15 59·7	+ 0 48 47·6	− 4·0
29	I.	13 20 19·45	− 0·63	N.	52 31·2	− 16 13·0	− 5 49 8·8	− 3·7
May 1	II.	15 16 33·00	− 0·70	S.	58 25·1	+ 16 29·9	− 18 13 0·3	− 2·7
7	II.	21 45 40·61	− 0·65	......	....	....	....	....
9	II.	23 29 57·23	+ 0·06	......	....	....	....	....
19	I.	6 56 7·71	− 0·62	......	....	....	....	....
23	I.	10 25 58·52	− 0·28	......	....	....	....	....
24	I.	11 15 7·92	− 0·18	......	....	....	....	....
25	I.	12 4 10·67	− 0·16	......	....	....	....	....
26	I.	12 54 16·67	− 0·25	N.	50 6·4	− 15 59·1	− 2 32 18·3	+ 2·6
27	I.	13 46 46·94	− 0·15	......	....	....	....	....
28	I.	14 43 4·37	− 0·37	N.	57 13·8	− 16 27·7	− 15 15 59·9	+ 0·1
29	......	....	....	N.	59 19·2	− 16 37·0	− 20 41 39·9	+ 1·3
30	......	....	....	S.	60 28·0	+ 16 41·1	− 24 44 32·5	− 1·6
June 20	I.	10 57 5·78	− 0·50	......	....	....	....	....
23	I.	13 22 40·63	− 0·47	......	....	....	....	....
25	I.	15 12 40·97	− 0·46	......	....	....	....	....
28	I.	18 34 46·51	− 0·91	......	....	....	....	....
	II.	18 37 24·55	− 0·55	......	....	....	....	....
July 18	I.	11 29 24·40	− 0·87	......	....	....	....	....
26	......	....	....	S.	60 23·3	+ 16 36·7	− 26 48 22·9	− 5·5

Date.	RIGHT ASCENSION.			DECLINATION.				
	Limb observed.	Right Ascension of Limb.	Difference from Naut. Almanac.	Limb observed.	Parallax in Declination.	Semidiameter.	Declination of Centre.	Difference from Naut. Almanac.
1836,		h. m. s.	s.		′ ″	′ ″	° ′ ″	″
Aug. 4	II.	3 25 49·78	– 0·06	N.	+ 32 37·7	– 14 55·1	+ 19 23 31·9	– 0·9
20	I.	16 25 41·01	– 0·96	N.	58 13·0	– 16 7·7	– 23 52 4·9	– 4·8
22	I.	18 38 22·14	– 1·15	S.	59 35·9	+ 16 21·5	– 27 16 32·4	– 12·8
24	I.	20 52 44·04	– 1·34	S.	59 2·4	+ 16 23·3	– 22 41 41·0	– 13·0
27	II.	23 47 15·68	– 1·20	N.	51 37·8	– 15 58·1	– 5 38 23·1	– 6·5
Sept. 2	II.	4 48 44·12	+ 0·13	N.	27 56·9	– 14 50·1	+ 25 1 40·0	+ 0·2
16	I.	16 6 52·75	– 1·13	......	....	....	....	....
17	I.	17 9 34·97	– 0·90	......	....	....	....	....
19	I.	19 22 11·04	– 0·86	S.	58 54·0	+ 16 10·8	– 26 51 11·1	– 5·7
20	I.	20 27 21·68	-- 0·92	S.	58 34·0	+ 16 10·8	– 24 19 46·7	– 7·2
21	I.	21 29 5·35	– 1·15	S.	57 38·0	+ 16 8·6	– 20 10 0·6	– 11·4
24	I.	0 11 56·85	– 1·12	S.	49 35·9	+ 15 47·9	– 2 9 32·3	– 16·3
Oct. 2	II.	7 10 38·95	+ 0·22	S.	26 25·9	+ 14 46·7	+ 27 13 31·2	– 2·0
4	II.	8 57 57·86	– 0·24	S.	30 24·3	+ 14 55·0	+ 22 42 27·6	– 1·6
5	II.	9 49 6·77	– 0·35	......	....	....	....	....
16	I.	19 2 22·44	– 0·61	......	....	....	....	....
17	......	....	....	S.	58 26·4	+ 16 6·1	– 25 25 29·9	+ 1·0
19	I.	22 7 12·27	– 0·93	S.	56 2·9	+ 15 56·3	– 16 51 43·7	– 7·0
21	I.	23 51 52·49	– 0·71	S.	50 38·3	+ 15 42·7	– 4 47 37·2	– 9·2
23	I.	1 29 38·82	– 0·72	......	....	....	....	....
24	II.	2 20 54·38	– 0·30	S.	38 12·8	+ 15 17·0	+ 13 35 55·4	– 10·5
25	II.	3 11 17·96	– 0·74	N.	33 41·5	– 15 8·2	+ 18 38 53·3	– 2·8
Nov. 1	II.	9 27 16·48	+ 0·40	......	....	....	....	....
3	II.	11 4 56·97	– 0·12	......	....	....	....	....
4	II.	11 52 45·36	– 0·22	......	....	....	....	....
13	I.	19 47 4·27	– 1·41	S.	59 13·3	+ 16 17·1	– 26 16 2·8	– 5·4
14	I.	20 51 10·57	– 1·46	S.	58 15·3	+ 16 9·2	– 23 3 52·1	– 5·9
18	I.	0 24 47·73	– 0·55	......	....	....	....	....
19	I.	1 12 33·77	– 0·39	......	....	....	....	....
20	I.	2 0 32·37	– 0·28	......	....	....	....	....
21	I.	2 49 41·98	– 0·09	......	....	....	....	....
30	II.	10 44 13·72	+ 0·25	S.	37 51·5	+ 15 1·3	+ 13 9 49·2	– 1·1
Dec. 2	II.	12 17 48·01	– 0·19	S.	46 24·2	+ 15 26·5	+ 1 38 47·3	– 2·3
3	II.	13 6 0·09	– 0·10	S.	50 31·2	+ 15 42·0	– 4 37 32·9	– 1·9
13	I.	22 27 2·09	– 0·89	S.	55 55·6	+ 16 5·3	– 14 42 47·8	– 7·6
15	I.	0 9 54·95	– 1·12	S.	49 10·9	+ 15 38·6	– 2 19 8·5	– 8·7
16	I.	0 57 54·46	– 0·66	S.	45 3·7	+ 15 26·3	+ 3 55 47·1	– 11·1
19	I.	3 23 28·73	+ 0·06	S.	32 44·1	+ 14 58·9	+ 19 56 2·7	– 7·3
20	I.	4 15 21·17	+ 0·05	......	....	....	....	....
21	I.	5 9 14·48	– 0·14	N.	26 54·9	– 14 48·0	+ 26 11 40·6	– 2·6
23	II.	7 2 14·62	– 0·28	N.	25 49·1	– 14 42·4	+ 27 18 46·5	+ 2·3
31	I.*	13 30 34·04	– 0·65	S.	51 52·7	+ 15 37·1	– 8 12 44·6	– 3·5
	II.	13 32 44·84	– 0·41	......	....	....	....	....

* Dark or unenlightened Limb.

Date.	RIGHT ASCENSION.			DECLINATION.		
	Limb observed.	Right Ascension of Centre.	Difference from Nautical Almanac.	Parallax in Declination.	Declination of Centre.	Difference from Nautical Almanac.
1836,		h. m. s.	s.	″	° ′ ″	″
Jan. 30	......	....	....	+ 7·1	– 13 49 4·3	– 0·3
Feb. 6	I.	22 26 43·67	– 0·02	8·1	– 9 6 7·5	– 2·2
Mar. 25	.....	....	....	7·8	– 10 0 33·6	+ 6·5
April 3	II.	23 32 8·82	– 0·24	....	....	....
May 7	I.	3 27 52·14	– 0·50	....	....	....
8	......	....	....	3·9	+ 20 31 10·6	– 5·2
10	I.	3 53 39·42	– 0·64	3·9	+ 21 44 12·5	– 5·4
12	I.	4 10 33·42	– 0·69	3·9	+ 22 47 24·2	– 4·4
14	I.	4 27 2·52	– 0·43	....	....	....
17	I.	4 50 40·35	– 0·58	4·0	+ 24 40 11·1	– 1·2
18	I.	4 58 12·26	– 0·49	4·1	+ 24 55 8·7	0·0
24	I.	5 38 58·47	– 0·39	....	....	....
25	I.	5 44 57·21	– 0·45	4·6	+ 25 37 27·1	+ 0·2
26	I.	5 50 41·18	– 0·18	4·7	+ 25 35 44·5	– 0·5
27	I.	5 56 9·27	– 0·28	....	....	....
28	I.	6 1 21·58	– 0·30	4·9	+ 25 27 34·7	+ 0·6
30	I.	6 10 57·32	– 0·13	....	....	....
31	I.	6 15 19·77	– 0·22	....	....	....
June 8	I.	6 39 28·78	– 0·20	....	....	....
July 11	II.	6 7 41·16	– 0·09	....	....	....
17	II.	6 24 12·86	– 0·24	....	....	....
19	II.	6 32 49·26	– 0·48	....	....	....
31	II.	7 52 50·54	– 0·58	4·0	+ 21 36 17·2	– 1·1
Aug. 1	II.	8 1 6·77	– 0·77	4·0	+ 21 23 34·9	– 0·5
4	II.	8 26 31·01	– 0·75	3·9	+ 20 29 23·4	+ 0·8
7	......	....	....	3·9	+ 19 12 15·3	– 0·2
8	II.	9 0 36·62	– 0·64	3·9	+ 18 42 0·8	+ 2·4
23	I.	10 47 8·66	– 0·30	4·6	+ 9 12 56·9	+ 3·9
24	I.	10 53 47·59	– 0·33	....	....	....
27	I.	11 13 3·68	– 0·38	....	....	....
29	I.	11 25 23·18	– 0·14	5·1	+ 4 37 18·8	+ 1·5
Sept. 1	I.	11 43 9·90	+ 0·04	5·3	+ 2 20 32·9	+ 3·8
6	I.	12 11 8·06	– 0·01	....	....	....
16	I.	13 1 47·05	+ 0·12	....	....	....
Nov. 4	II.	13 33 15·14	– 0·01	....	....	....
6	II.	13 40 34·15	– 0·03	....	....	....
13	II.	14 14 25·16	– 0·04	....	....	....
16	II.	14 31 12·98	0·00	....	....	....
29	II.	15 50 46·69	+ 0·14	....	....	....

Date.	Right Ascension.			Declination.			
	Limb observed.	Right Ascension of Centre.	Difference from Nautical Almanac.	Limb observed.	Parallax in Declination.	Declination of Centre.	Difference from Nautical Almanac.
1836,		h. m. s.	s.		″	° ′ ″	″
Jan. 9	I.	20 59 20·48	– 0·14	....	....	....	....
16	I.	21 34 13·14	0·00	....	+ 5·5	– 16 10 46·7	– 0·4
19	I.	21 48 49·81	+ 0·01	....	....	....	....
22	I.	22 3 14·71	– 0·12	....	5·5	– 13 38 30·1	– 2·4
26	I.	22 22 10·55	– 0·35	....	......	....	....
31	I.	....	....	....	5·4	– 9 26 41·2	– 3·0
Feb. 6	I.	23 12 46·45	– 0·18	....	5·5	– 6 27 25·6	– 4·2
9	I.	23 26 16·42	– 0·01	....	5·4	– 4 55 23·2	– 3·1
11	I.	23 35 12·82	– 0·21	....	5·4	– 3 53 22·9	– 3·0
12	I.	23 39 40·15	– 0·31	....	5·4	– 3 22 13·3	– 2·9
20	...	....	....	....	5·3	+ 0 49 16·0	– 2·8
22	I.	0 23 52·47	– 0·15	....	5·3	+ 1 52 18·4	– 1·9
23	...	....	....	....	5·3	+ 2 23 46·5	– 1·9
Mar. 3	I.	1 7 50·21	– 0·30	....	5·2	+ 7 3 25·1	– 1·3
4	I.	1 12 14·49	– 0·45	....	5·1	+ 7 33 50·6	– 3·0
7	I.	1 25 29·52	– 0·43	....	5·1	+ 9 4 10·5	– 2·0
9	I.	1 34 21·43	– 0·32	....	5·1	+ 10 3 25·0	– 1·2
11	I.	1 43 14·89	– 0·40	....	5·1	+ 11 1 45·2	– 0·8
14	I.	1 56 39·02	– 0·30	....	5·0	+ 12 27 22·0	– 0·9
19	I.	2 19 10·76	– 0·18	....	4·9	+ 14 44 14·9	– 1·5
22	I.	2 32 49·11	– 0·47	S.	4·9	+ 16 2 24·5	+ 0·2
24	I.	2 41 58·41	– 0·29	....	....	....	....
29	I.	3 5 2·90	– 0·52	S.	4·7	+ 18 51 0·1	– 0·1
April 11	I.	4 6 17·31	– 0·51	....	....	....	....
13	I.	4 15 50·13	– 0·55	S.	4·7	+ 23 33 20·0	+ 1·5
15	I.	4 25 24·25	– 0·51	S.	4·7	+ 24 1 38·8	+ 2·8
18	I.	4 39 46·66	– 0·52	....	....	....	....
20	I.	4 49 21·81	– 0·52	S.	4·8	+ 25 1 50·4	+ 2·4
28	I.	5 27 31·29	– 0·69	....	5·0	+ 26 5 48·2	+ 4·3
29	I.	5 32 15·10	– 0·56	....	5·0	+ 26 10 54·7	+ 2·0
May 2	I.	5 46 20·87	– 0·56	....	5·1	+ 26 22 34·9	+ 3·4
6	I.	6 4 53·02	– 0·52	....	5·3	+ 26 29 22·3	+ 3·6
7	I.	6 9 27·85	– 0·39	....	5·3	+ 26 29 30·9	+ 2·8
9	I.	6 18 32·61	– 0·39	....	5·4	+ 26 28 3·1	+ 4·6
10	I.	6 23 2·41	– 0·48	....	5·5	+ 26 26 25·8	+ 5·4
11	I.	6 27 30·68	– 0·31	....	....	....	....
12	I.	6 31 56·42	– 0·78	....	5·6	+ 26 21 23·3	+ 4·5
14	I.	6 40 43·15	– 0·47	....	5·8	+ 26 14 5·0	+ 4·9
16	I.	6 49 20·97	– 0·41	....	....	....	....
17	I.	6 53 36·28	– 0·46	....	....	....	....
20	I.	7 6 7·16	– 0·42	....	....	....	....
23	I.	7 18 12·86	– 0·44	....	....	....	....
24	I.	7 22 8·48	– 0·61	....	....	....	....
25	I.	7 26 1·02	– 0·64	N.	6·9	+ 24 56 22·3	+ 3·6
26	I.	7 29 50·41	– 0·49	S.	7·0	+ 24 46 28·8	+ 3·1
27	I.	7 33 36·42	– 0·28	N.	7·1	+ 24 36 11·5	+ 3·7
28	I.	7 37 18·48	– 0·51	S.	7·2	+ 24 25 29·9	+ 3·9
30	I.	7 44 32·00	– 0·48	N.	7·5	+ 24 2 59·3	+ 5·1
31	I.	7 48 2·96	– 0·53	....	....	....	....
June 8	I.	8 13 38·17	– 0·60	....	....	....	....
10	I.	8 19 15·04	– 0·69	....	....	....	....
15	I.	8 31 43·15	– 0·70	....	....	....	....
18	I.	8 38 0·75	– 0·60	....	....	....	....
23	I.	8 46 14·15	– 0·81	....	....	....	....
25	I.	8 48 39·54	– 0·66	....	....	....	....

Date.	Right Ascension.			Declination.			
	Limb observed.	Right Ascension of Centre.	Difference from Nautical Almanac.	Limb observed.	Parallax in Declination.	Declination of Centre.	Difference from Nautical Almanac.
1836,		h. m. s.	s.		"	° ′ "	"
July 2	I.	8 52 43·29	− 0·96	N.	+ 15·0	+ 16 14 53·4	+ 1·0
4	I.	8 52 31·80	− 1·05	S.	15·6	+ 15 49 39·4	− 0·7
7	……	……………	………	N.	16·5	+ 15 14 43·0	0·0
8	I.	8 50 15·32	− 0·98	S.	16·8	+ 15 3 51·9	− 2·9
18	I.	8 34 2·00	− 1·03	N.	19·2	+ 13 43 38·2	− 5·4
19	I.	8 31 43·63	− 0·84	………	……	………………	………
20	I.	8 29 19·61	− 1·03	N.	19·5	+ 13 34 18·1	− 5·6
22	I.	8 24 19·59	− 0·80	N.	19·7	+ 13 27 21·0	− 1·6
31	……	……………	………	N.	19·5	+ 13 23 59·2	− 9·4
Aug. 1	II.	7 56 52·22	− 0·61	S.	19·4	+ 13 25 59·9	− 17·3 *
4	II.	7 51 2·89	− 0·46	S.	18·8	+ 13 34 34·6	− 8·1
5	II.	7 49 22·80	− 0·53	N.	18·6	+ 13 37 58·1	− 7·2
8	II.	7 45 17·79	− 0·25	N.	17·9	+ 13 49 24·1	− 7·3
9	II.	7 44 14·92	− 0·44	S.	17·7	+ 13 53 33·7	− 7·4
10	……	……………	………	S.	17·5	+ 13 57 49·8	− 8·8
11	II.	7 42 39·14	− 0·31	S.	17·2	+ 14 2 13·3	− 8·8
14	II.	7 41 29·22	− 0·33	N.	16·4	+ 14 15 45·5	− 7·2
16	……	……………	………	S.	15·9	+ 14 24 45·2	− 10·4
22	II.	7 45 18·13	− 0·15	………	……	………………	………
23	II.	7 46 25·90	− 0·30	………	……	………………	………
28	……	……………	………	N.	15·2	+ 15 8 43·6	………
Sept. 2	II.	8 4 27·51	− 0·18	………	……	………………	− 2·9
Oct. 4	II.	9 51 6·67	+ 0·05	S.	8·5	+ 11 50 22·5	− 2·4
5	II.	9 55 4·10	+ 0·35	N.	8·4	+ 11 36 11·0	− 0·8
Nov. 3	II.	11 55 5·29	+ 0·22	………	……	………………	………
4	II.	11 59 21·40	+ 0·14	………	……	………………	………
27	II.	13 40 8·69	+ 0·56	………	……	………………	………
29	II.	13 49 12·84	+ 0·50	………	……	………………	………
Dec. 2	II.	14 2 56·46	+ 0·65	………	……	………………	………
3	……	……………	………	S.	7·0	− 10 39 54·8	− 1·0
8	II.	14 30 50·63	+ 0·43	………	……	………………	………
14	II.	14 59 24·30	+ 0·32	S.	6·8	− 14 54 44·3	− 3·0
15	……	……………	………	S.	6·7	− 15 16 7·0	+ 0·1

* All the calculations have been re-examined.

Date.	RIGHT ASCENSION.			DECLINATION.		
	Limb observed.	Right Ascension of Centre.	Difference from Nautical Almanac.	Parallax in Declination.	Declination of Centre.	Difference from Nautical Almanac.
1836,		h. m. s.	s.	″	° ′ ″	″
July 10	II.	4 5 29·56	+ 0·04	....	....	....
11	II.	4 8 24·99	+ 0·38	+ 2·5	+ 20 38 4·8	− 2·0
17	II.	4 25 55·25	+ 0·14	....	....	....
31	II.	5 6 38·58	+ 0·26	....	....	....
Aug. 4	II.	5 18 12·12	+ 0·13	2·5	+ 23 5 20·9	− 4·3
7	II.	5 26 50·39	+ 0·17	....	....	....
8	II.	5 29 42·89	+ 0·38	2·5	+ 23 18 44·0	− 3·9
Sept. 2	II.	6 39 37·17	− 0·03	2·7	+ 23 34 16·2	− 4·5
Oct. 2	II.	7 56 2·70	− 0·05	3·2	+ 21 45 55·2	− 7·4
Nov. 1	II.	9 0 0·34	− 0·18	....	....	....

OBSERVED RIGHT ASCENSIONS AND DECLINATIONS OF VESTA.

Date.	RIGHT ASCENSION.		DECLINATION.		
	Right Ascension.	Difference from Nautical Almanac.	Parallax in Declination.	Declination.	Difference from Nautical Almanac.
1836,	h. m. s.	s.	″	° ′ ″	″
Mar. 3	....	....	+ 4·5	+ 10 47 16·7	+ 15·0
4	12 15 34·38	− 3·06	4·5	+ 10 55 36·5	+ 13·6
5	12 14 49·49	− 2·90	......	....	....
8	12 12 27·94	− 2·55	......	....	....
9	12 11 38·52	− 2·63	......	....	....
14	12 7 19·53	− 2·63	4·5	+ 12 17 0·7	+ 13·2
15	12 6 25·91	− 2·50	4·5	+ 12 24 40·6	+ 11·8
19	12 2 47·11	− 2·49	4·5	+ 12 54 5·5	+ 13·2
23	11 59 5·85	− 2·76	4·4	+ 13 20 48·4	+ 12·4
24	....	....	4·4	+ 13 27 1·0	+ 13·0
25	11 57 16·14	− 2·82	......	....	....
26	11 56 21·90	− 2·72	4·4	+ 13 38 43·5	+ 9·7
29	11 54 41·46	− 3·06	4·3	+ 13 54 41·1	+ 9·8
30	11 52 49·88	− 2·47	......	....	....
April 1	11 51 7·59	− 2·66	4·3	+ 14 8 31·4	+ 11·3
2	11 50 17·85	− 2·58	......	....	....
7	11 46 23·68	− 2·67	......	....	....
13	11 42 23·04	− 2·83	......	....	....
15	11 41 14·56	− 2·68	......	....	....
20	11 38 51·09	....	4·0	+ 14 41 24·8	....
21	11 38 27·57	....	4·0	+ 14 40 30·5	....
22	11 38 5·66	....	......	....	....
23	11 37 45·52	....	3·9	+ 14 37 55·8	....
25	....	....	3·9	+ 14 35 19·8	....
29	11 36 21·29	....	......	....	....
30	11 36 13·15	....	3·8	+ 14 21 14·8	....
May 1	....	....	3·8	+ 14 17 56·4	....

OBSERVED RIGHT ASCENSIONS AND DECLINATIONS OF VESTA.

Date.	Right Ascension.		Declination.		
	Right Ascension of Centre.	Difference from Nautical Almanac.	Parallax in Declination.	Declination of Centre.	Difference from Nautical Almanac.
1836,	h. m. s.	s.	"	° ' "	"
May 2	11 36 2·98	....	......	....	....
6	....	....	+ 3·7	+ 13 58 15·1	....
7	11 36 7·14	....	......	....	....
9	11 36 20·69	....	3·7	+ 13 44 0·4	....
10	11 36 30·09	....	......	....	....
11	11 36 41·06	....	3·6	+ 13 33 34·5	....
13	11 37 8·30	....	......	....	....
14	11 37 24·24	....	3·6	+ 13 16 31·7	....

OBSERVED RIGHT ASCENSIONS AND DECLINATIONS OF JUNO.

Date.	Right Ascension.		Declination.		
	Right Ascension.	Difference from Nautical Almanac.	Parallax in Declination.	Declination.	Difference from Nautical Almanac.
1836,	h. m. s.	s.	' "	° ' "	"
Jan. 7	6 32 8·71	+ 3·23	......	....	....
9	....	....	+ 5·9	+ 1 18 42·7	+ 20·3
11	6 28 55·20	+ 2·68	5·7	+ 1 33 11·9	+ 20·0
12	6 28 10·07	+ 3·29	5·7	+ 1 40 47·9	+ 21·3
13	6 27 25·34	+ 3·14	......	....	....
14	6 26 42·26	+ 3·45	5·7	+ 1 56 34·4	+ 20·6
16	6 25 19·35	+ 3·39	5·6	+ 2 13 8·4	+ 20·9
Feb. 1	6 18 7·85	+ 3·02	......	....	....
9	6 17 28·28	....	4·6	+ 6 6 0·3	....
20	6 19 49·79	....	......	....	....
22	6 20 39·28	....	4·1	+ 8 14 22·4	....
Mar. 9	6 31 9·34	....	......	....	....
14	6 35 36·14	....	......	....	....
16	6 37 33·14	....	......	....	....
22	6 43 51·27	....	......	....	....

Date.	RIGHT ASCENSION.		DECLINATION.		
	Right Ascension.	Difference from Nautical Almanac.	Parallax in Declination.	Declination.	Difference from Nautical Almanac.
1836,	h. m. s.	s.	"	° ' "	"
July 30	………………	………	+ 2·3	+ 13 42 27·0	− 25·7
Aug. 6	21 6 43·29	− 1·58	....	………………	………
8	21 5 10·33	− 1·50	2·4	+ 12 35 14·1	− 28·6
9	21 4 23·43	− 1·89	2·4	+ 12 26 42·9	− 26·1
10	21 3 36·90	− 1·97	....	………………	………
11	21 2 50·65	− 1·87	2·4	+ 12 9 0·5	− 24·2
12	21 2 4·40	− 1·93	2·4	+ 11 59 48·0	− 26·7
18	20 57 32·95	− 1·70	2·5	+ 11 0 57·3	− 23·5
22	20 54 39·94	− 1·81	....	………………	………
27	20 51 17·15	− 1·84	....	………………	………
28	………………	………	2·5	+ 9 10 40·5	− 25·9
29	20 50 1·02	− 1·86	2·5	+ 8 59 0·3	− 26·8
Sept. 13	20 42 27·71	− 1·69	....	………………	………
17	20 41 7·51	………	2·5	+ 5 8 29·8	………
30	………………	………	2·6	+ 2 35 38·2	………

OBSERVED RIGHT ASCENSIONS AND DECLINATIONS OF CERES.

Date.	RIGHT ASCENSION.		DECLINATION.		
	Right Ascension.	Difference from Nautical Almanac.	Parallax in Declination.	Declination.	Difference from Nautical Almanac.
1836,	h. m. s.	s.	"	° ' "	"
Aug. 22	23 44 14·80	− 0·53	+ 4·0	− 18 39 58·2	− 2·0
24	23 42 54·93	− 0·51	4·0	− 18 53 30·2	− 4·3
27	23 40 48·19	− 0·58	4·2	− 19 13 28·4	− 7·3
29	23 39 19·65	− 0·53	4·2	− 19 26 24·9	− 4·6
Sept. 1	23 37 1·60	− 0·29	4·2	− 19 45 19·2	− 4·5
7	23 32 9·86	− 0·55	....	………………	………
13	23 27 7·76	− 0·66	4·2	− 20 50 38·3	− 4·5
15	………………	………	4·2	− 20 59 29·2	− 7·6
17	23 23 46·65	− 0·59	4·2	− 21 7 30·3	− 3·1
20	23 21 18·22	− 0·72	4·1	− 21 18 14·4	− 2·2
21	23 20 29·64	− 0·64	4·1	− 21 21 26·4	− 2·1
24	………………	………	4·1	− 21 29 55·7	− 5·8
30	23 13 38·57	− 0·66	4·1	− 21 41 16·8	− 2·2
Oct. 13	23 5 55·43	………	....	………………	………
18	………………	………	3·8	− 21 31 48·0	………
25	23 1 56·81	………	3·7	− 21 11 36·1	………

Date.	Right Ascension.			Declination.			
	Limb observed.	Right Ascension of Centre.	Difference from Nautical Almanac.	Limb observed.	Parallax in Declination.	Declination of Centre.	Difference from Nautical Almanac.
1836,		h. m. s.	s.		″	° ′ ″	″
Jan. 7	I. & II.	6 43 54·72	− 0·55	S.	+ 1·1	+ 23 9 4·3	− 1·5
11	I. & II.	6 41 38·00	− 0·41	N.	1·1	+ 23 11 59·9	+ 1·4
12	I. & II.	6 41 4·26	− 0·50	S.	1·1	+ 23 12 38·7	− 1·2
13	I. & II.	6 40 30·98	− 0·43	....	.....	....	....
14	I. & II.	6 39 57·96	− 0·39	N.	1·1	+ 23 13 59·4	− 1·0
15	....	....	....	S.	1·1	+ 23 14 37·9	− 1·7
16	I. & II.	6 38 52·94	− 0·31	N.	1·1	+ 23 15 16·8	− 1·1
28	I. & II.	6 33 0·50	− 0·41	....	.....	....	....
30	I. & II.	6 32 9·84	− 0·28	....	.....	....	....
Feb. 1	I. & II.	6 31 21·62	− 0·35	....	.....	....	....
2	I. & II.	6 30 58·64	− 0·28	....	.....	....	....
9	I. & II.	6 28 37·52	− 0·24	S.	1·0	+ 23 26 30·5	− 1·6
11	I. & II.	6 29 4·30	0·00	N.	1·0	+ 23 27 5·4	− 2·6
12	I. & II.	6 27 48·68	− 0·09	....	.....	....	....
17	I. & II.	6 26 42·95	− 0·45	S.	1·0	+ 23 28 35·9	− 3·5
20	I. & II.	6 26 14·06	− 0·19	....	.....	....	....
22	I. & II.	6 25 59·06	− 0·04	....	.....	....	....
23	I. & II.	6 25 52·56	− 0·24	N.	1·0	+ 23 29 45·5	− 2·2
25	I. & II.	6 25 42·48	− 0·32	....	.....	....	....
29	I. & II.	6 25 32·96	− 0·17	....	.....	....	....
Mar. 2	I. & II.	6 25 33·32	− 0·11	S.	1·0	+ 23 30 42·9	− 2·1
3	I. & II.	6 25 34·91	+ 0·05	....	.....	....	....
9	I. & II.	6 26 1·02	− 0·11	....	.....	....	....
14	I. & II.	6 26 45·87	− 0·03	N.	0·9	+ 23 31 1·2	− 0·8
15	I. & II.	6 26 57·32	+ 0·01	....	.....	....	....
16	I. & II.	6 27 9·39	− 0·14	....	.....	....	....
17	I. & II.	6 27 22·44	− 0·12	S.	0·9	+ 23 30 52·3	− 0·8
22	I. & II.	6 28 39·35	− 0·13	N.	0·9	+ 23 30 23·7	− 1·4
23	I. & II.	6 28 57·10	− 0·08	S.	0·9	+ 23 30 16·0	− 1·6
24	I. & II.	6 29 15·56	− 0·07	....	.....	....	....
25	I. & II.	6 29 34·76	− 0·07	N.	0·9	+ 23 29 58·9	− 1·5
26	I. & II.	6 29 54·92	+ 0·15	S.	0·9	+ 23 29 51·6	+ 0·8
29	I. & II.	6 30 58·82	− 0·11	N.	0·9	+ 23 29 14·6	− 3·0
April 2	I. & II.	6 32 34·40	+ 0·13	....	.....	....	....
13	I. & II.	6 37 50·46	− 0·19	....	.....	....	....
15	I. & II.	6 38 56·12	− 0·06	....	.....	....	....
20	I. & II.	6 41 49·80	− 0·08	....	0·9	+ 23 21 21·8	− 1·6
22	I. & II.	6 43 2·95	− 0·19	....	0·9	+ 23 20 15·0	− 2·3
25	I. & II.	6 44 56·56	− 0·31	....	0·8	+ 23 18 27·2	− 2·7
26	I. & II.	6 45 35·46	− 0·32	....	.....	....	....
29	I. & II.	6 47 35·28	− 0·06	....	.....	....	....
May 2	I. & II.	6 49 38·84	− 0·14	....	0·8	+ 23 13 39·0	− 0·2
6	I. & II.	6 52 29·75	− 0·13	....	.....	....	....
7	I. & II.	6 53 13·77	+ 0·12	....	0·8	+ 23 9 36·2	+ 1·1
9	I. & II.	6 54 42·36	− 0·01	....	0·8	+ 23 7 47·4	− 1·3
12	I. & II.	6 56 58·08	− 0·24	....	0·8	+ 23 5 0·8	+ 1·3
14	I. & II.	6 58 30·74	− 0·06	....	0·8	+ 23 3 0·0	0·0
16	I. & II.	7 0 4·60	− 0·09	....	.....	....	....
17	I. & II.	7 0 51·89	− 0·25	....	.....	....	....
23	I. & II.	7 5 43·47	+ 0·05	....	0·8	+ 22 52 54·5	− 0·5
24	I. & II.	7 6 32·87	− 0·13	....	.....	....	....
25	I. & II.	7 7 22·72	− 0·14	....	0·8	+ 22 50 24·7	− 0·7
26	I. & II.	7 8 12·86	− 0·12	....	.....	....	....
27	I. & II.	7 9 3·20	− 0·17	....	0·8	+ 22 47 47·8	− 2·3
28	I. & II.	7 9 54·05	+ 0·05	....	.....	....	....
31	I. & II.	7 12 27·37	− 0·01	....	.....	....	....

Date.	Right Ascension.			Declination.			
	Limb observed.	Right Ascension of Centre.	Difference from Nautical Almanac.	Limb observed.	Parallax in Declination.	Declination of Centre.	Difference from Nautical Almanac.
1836,		h. m. s.	s.		"	° ' "	"
Oct. 2	I. & II.	9 0 48·87	+ 0·15	S.	+ 0·9	+ 17 31 44·4	− 0·2
4	I. & II.	9 2 6·31	+ 0·07	N.	0·9	+ 17 26 35·9	− 1·6
Nov. 1	I. & II.	9 16 40·41	+ 0·22	....	....	....	....

OBSERVED RIGHT ASCENSIONS AND DECLINATIONS OF SATURN.

Date.	Right Ascension.			Declination.			
	Limb observed.	Right Ascension of Centre.	Difference from Nautical Almanac.	Limb observed.	Parallax in Declination.	Declination of Centre.	Difference from Nautical Almanac.
1836,		h. m. s.	s.		"	° ' "	"
April 12	I. & II.	14 5 34·50	− 0·16	S.	+ 0·9	− 9 49 47·5	+ 17·7
15	I. & II.	14 4 43·43	0·00	N.	0·9	− 9 45 3·9	+ 20·6
18	I. & II.	14 3 51·47	− 0·19	S.	0·9	− 9 40 23·7	+ 19·8
20	I. & II.	14 3 16·73	− 0·25	N.	0·9	− 9 37 18·0	+ 18·7
21	I. & II.	14 2 59·68	+ 0·07	S.	0·9	− 9 35 44·9	+ 18·7
22	I. & II.	14 2 42·13	− 0·11	N.	0·9	− 9 34 11·6	+ 19·1
25	I. & II.	14 1 50·02	− 0·19	S.	0·9	− 9 29 35·7	+ 18·6
26	I. & II.	14 1 32·96	+ 0·04	N.	0·9	− 9 28 3·0	+ 19·9
28	I. & II.	14 0 58·30	− 0·15	S.	0·9	− 9 25 2·8	+ 18·8
May 1	....	....	....	N.	0·9	− 9 20 36·1	+ 17·9
2	I. & II.	13 59 50·10	− 0·18	....	....	....	....
5	I. & II.	13 58 59·94	− 0·15	S.	0·9	− 9 14 50·3	+ 18·1
6	I. & II.	13 58 43·46	− 0·12	N.	0·9	− 9 13 24·7	+ 19·4
7	I. & II.	13 58 27·10	− 0·10	S.	0·9	− 9 12 2·4	+ 18·3
9	I. & II.	13 57 54·60	− 0·22	....	....	....	....
10	I. & II.	13 57 38·63	− 0·23	N.	0·9	− 9 7 56·9	+ 19·4
14	I. & II.	13 56 36·52	− 0·08	....	....	....	....
16	I. & II.	13 56 6·50	− 0·08	....	....	....	....
18	I. & II.	13 55 37·34	− 0·04	S.	0·9	− 8 57 59·9	+ 17·1
19	I. & II.	13 55 23·12	+ 0·02	N.	0·9	− 8 56 48·6	+ 19·6
23	I. & II.	13 54 28·19	− 0·15	S.	0·9	− 8 52 29·3	+ 18·6
25	I. & II.	13 54 2·34	− 0·08	....	....	....	....
26	I. & II.	13 53 49·73	− 0·12	N.	0·8	− 8 49 32·1	+ 17·6
27	I. & II.	13 53 37·50	− 0·04	....	....	....	....
28	I. & II.	13 53 25·44	− 0·07	....	....	....	....
31	I. & II.	13 52 51·08	− 0·04	....	....	....	....
June 6	I. & II.	13 51 50·14	− 0·17	....	....	....	....
8	I. & II.	13 51 32·26	− 0·23	....	....	....	....
9	I. & II.	13 51 23·94	− 0·16	....	....	....	....
12	I. & II.	13 51 0·70	− 0·19	....	....	....	....
15	I. & II.	13 50 40·56	− 0·19	....	....	....	....
20	I. & II.	13 50 13·88	− 0·30	....	....	....	....
22	I. & II.	13 50 6·00	− 0·06	....	....	....	....

Date.	RIGHT ASCENSION.		DECLINATION.		
	Right Ascension.	Difference from Nautical Almanac.	Parallax in Declination.	Declination.	Difference from Nautical Almanac.
1836,	h. m. s.	s.	"	° ′ "	"
Aug. 9	22 21 34·61	– 4·09	+ 0·5	– 11 5 56·1	– 10·1
11	22 21 17·34	– 4·04	0·5	– 11 7 37·2	– 10·6
12	22 21 8·58	– 4·07	0·5	– 11 8 26·9	– 9·7
18	22 20 15·19	– 4·11	0·5	– 11 13 33·2	– 8·2
20	22 19 57·26	– 4·02	......	....	....
22	22 19 38·99	– 4·20	0·5	– 11 16 59·6	– 7·6
24	22 19 20·89	– 4·17	......	....	....
27	22 18 53·75	– 4·05	0·5	– 11 21 19·9	– 9·6
29	22 18 35·57	– 4·08	0·5	– 11 23 2·3	– 9·3
Sept. 1	22 18 8·76	– 3·77	0·5	– 11 25 35·3	– 9·2
6	....	....	0·5	– 11 29 45·6	– 8·6
13	22 16 23·15	– 4·15	0·5	– 11 35 22·6	– 8·2
17	22 15 50·08	– 4·05	0·5	– 11 38 25·4	– 8·0
19	22 15 33·92	– 4·12	......	....	....
20	22 15 26·02	– 4·11	0·5	– 11 40 39·1	– 9·9
21	22 15 18·29	– 4·03	0·5	– 11 41 20·7	– 8·8
24	22 14 55·59	– 3·87	0·5	– 11 43 26·0	– 9·2
30	22 14 12·39	– 4·30	0·5	– 11 47 15·2	– 6·9
Oct. 4	22 13 46·43	– 4·17	0·5	– 11 49 38·1	– 10·1
5	22 13 40·33	– 4·08	......	....	....
6	22 13 34·20	– 4·17	......	....	....
10	22 13 11·66	– 3·92	......	....	....
13	22 12 56·12	– 4·00	......	....	... .
15	22 12 46·52	– 4·08	0·4	– 11 54 49·7	– 6·7
17	....	....	0·4	– 11 55 35·0	– 6·6
19	22 12 29·54	– 4·00	......	....	....
24	22 12 12·15	– 3·89	......	....	....
25	....	....	0·4	– 11 57 59·0	– 8·2
Nov. 3	22 11 50·67	– 3·92	......	....	....
4	22 11 49·49	– 3·97	......	....	....
7	22 11 47·33	– 3·92	......	....	....
8	22 11 46·99	– 3·91	......	....	....
10	22 11 47·02	– 3·76	......	....	....
14	22 11 49·30	– 3·62	......	....	....
30	22 12 28·56	– 3·95	......	....	....
Dec. 1	22 12 33·42	– 3·18	......	....	....
8	22 13 7·28	– 3·21	......	....	....
9	22 13 12·81	– 3·27	......	....	....
10	22 13 18·54	– 3·32	0·4	– 11 49 45·7	– 8·5
14	22 13 43·37	– 3·30	0·4	– 11 47 18·9	– 9·3
16	22 13 56·75	– 3·34	0·4	– 11 45 58·5	– 8·5

OBSERVATIONS

OF THE

ANNULAR ECLIPSE OF THE SUN,

MAY 15, 1836;

OF

LUNAR OCCULTATIONS OF FIXED STARS;

AND OF

ECLIPSES OF JUPITER'S SATELLITES,

1836.

OBSERVATIONS OF THE ANNULAR ECLIPSE OF THE SUN.

MAY 15, 1836.

THE weather, during the Eclipse, was favourable. The sky was clear, except towards the end, when a few flying clouds passed over the Sun's disc, but they did not interrupt the observations. The wind blew pretty strongly from the south-west, and sometimes made the telescope vibrate, so as to render the observations at these times a little doubtful. The limbs of the Sun and Moon were at times remarkably well defined. At other times they were seen serrated and undulating, owing to the tremor of the atmosphere. On the whole the atmospheric circumstances were as favourable as could be expected in this climate at the season and time of the day.

The telescope, with which the Eclipse was observed, was that of the Altitude and Azimuth Circle. The aperture of the object-glass was limited to 1·6 inches; as the Sun was seen better defined with the reduced than with the whole object-glass. The eye-glass employed had a magnifying power of 68. The whole instrument was screened from the Sun, except the part of the object-glass employed.

The observation of the beginning of the Eclipse was lost from inadvertence. It was supposed that the eye-glass with the diagonal reflector would be more convenient for looking at the Sun than the direct eye-glass; but it was not considered that the diagonal eye-glass shews the images of objects inverted only in one direction. A wrong point of the Sun's limb was consequently watched, and before the mistake was discovered the Eclipse had commenced. The true time of the beginning of the Eclipse, computed from the observations afterwards inserted, is $5^{h}\ 6^{m}\ 9^{s}{\cdot}2$ sidereal time; and this is much more accurate than actual observation could have given. The diagonal eye-piece was withdrawn, and a direct one inserted, with which all the observations were made.

Shortly before the formation of the annulus, the cusps were seen to approach, and to be broken into several parts. When they were about 30° or 40° from each other, an arch of faint reddish light was seen extending between them. This appearance lasted several seconds. At $6^{h}\ 30^{m}\ 41^{s}{\cdot}1$ sidereal time, there suddenly appeared between the cusps small detached portions of the Sun's limb, like a string of beads, with dark intervals. The luminous portions increased in magnitude, the dark intervals decreased, and at $6^{h}\ 30^{m}\ 50^{s}{\cdot}1$ sidereal time, the annulus was first seen completely formed of sensible breadth at the narrowest part.

At the dissolution of the annulus similar appearances were noticed in a reverse order. The annulus decreasing, but being still of sensible breadth, at $6^{h}\ 34^{m}\ 33^{s}{\cdot}0$ sidereal time, it was suddenly broken in several places by dark spaces, leaving luminous portions between them. The dark spaces increased in magnitude, the luminous portions decreased, and finally disappeared at $6^{h}\ 34^{m}\ 44^{s}{\cdot}0$ sidereal time, and the Sun's limb was interrupted by a continuous dark space extending between the cusps. Being occupied in noting and writing down the times of these phenomena, I did not observe whether any faint arch appeared at the end of the annulus.

The end of the Eclipse did not seem to me capable of being observed with much precision. The portions of the limbs which were last in contact were sensibly uneven, and I could not determine satisfactorily the precise moment when they separated. At $7^{h}\ 53^{m}\ 0^{s}{\cdot}8$ sidereal time, I was doubtful whether the Eclipse was ended. Seven seconds later I was certain it was over. In placing the termination of the Eclipse at $7^{h}\ 53^{m}\ 4^{s}{\cdot}3$ sidereal time an error of two or three seconds may possibly be committed. The true time of the end of the Eclipse, deduced from the observations afterwards inserted, is $7^{h}\ 53^{m}\ 7^{s}{\cdot}5$ sidereal time, which is more to be depended upon.

During the endurance of the Eclipse I made many observations of the transits of the limbs of the Sun and Moon, and of the cusps, over the horizontal and vertical wires of the telescope of the Circle. The details of these observations are annexed. Although my attention was almost completely engaged by this work, it was impossible not to take notice of the considerable diminution of daylight which took place towards the middle of the Eclipse, and of the unusual and unnatural colour which the sky assumed, inclining towards a purple hue. *Venus* was distinctly seen by most persons who looked in the proper quarter, or to whom it was pointed out. *Jupiter*, being much fainter, was not seen by many. Mr Wallace, my assistant, first perceived it at $6^{h}\ 25^{m}$ sidereal time. *Sirius* passed the meridian soon after the dissolution of the annulus; but though he saw it very bright in the Transit-Telescope, he was unable to see it with the naked eye. There was a haze in that part of the sky. He also looked for *Capella* without success, and I have not learned that any of the fixed Stars were seen with the naked eye.

The state of the Meteorological Instruments, which were occasionally examined for being employed in the computations of refraction, was as follows:—

Sidereal Time.	Exterior Thermometer.	Barometer.	Attached Thermometer.
h. m.	°	Inches.	°
3 29	56·9	30·20	55·7
5 59	57·6	30·19	56·7
6 53	54·8	30·19	56·2
8 0	55·9	30·18	56·2

The times of the observations were indicated by the Assistant-Clock placed in the Dome. It was compared with the Transit-Clock, through the medium of a Mean-time Chronometer. The results of the comparisons, and the corrections to be applied to the times given by the Assistant-Clock, in order that the true sidereal times may be obtained, are as follows:—

Date.	Time by Assistant-Clock.	Transit-Clock *minus* Assistant-Clock.	Correction of Assistant-Clock.
	h. m.	s.	s.
May 14	2 35	− 53·57	− 23·11
15	3 54	− 53·97	− 23·42
	4 51	− 54·24	− 23·63
	8 0	− 55·10	− 24·24

From these quantities the corrections of the times of observation have been obtained by interpolation.

The observations of the beginning and end of the annulus, and end of the Eclipse, are as follows:—

	Time by Assistant-Clock.	Correction of Clock.
	h. m. s.	s.
Appearance of detached portions of the Sun's limb,	6 31 5	– 23·95
Annulus completely formed,	6 31 14	– 23·95
Annulus broken,	6 34 57	– 23·97
Disappearance of detached portions of the Sun's limb,	6 35 8	– 23·97
End of the Eclipse, between	7 53 25	– 24·22
and	7 53 32	– 24·22

The observations of transits were made in the following manner. The Azimuth-Circle being clamped, the Altitude-Circle was left free, and, in this state, the transits over the vertical wire were observed, the telescope being moved in a vertical direction by the hand, so that the points observed passed the vertical wire nearly in the same place. In like manner, the Altitude-Circle being clamped, the Azimuth-Circle was left free, and, in this state, the transits over the horizontal wire were observed, the instrument being moved in azimuth by the hand applied to the radii of the Azimuth-Circle, so that the points observed passed the horizontal wire nearly in the same place. During the times comprehended by the observations included between the horizontal lines in the annexed table, the circle that was clamped was not moved, so that the objects contained within the same lines were observed at the same azimuth or altitude.

OBSERVATIONS OF TRANSITS OVER THE VERTICAL AND HORIZONTAL WIRES OF THE TELESCOPE.

No. of Observation.	OBJECT OBSERVED.	Transit over Vertical Wire.	Transit over Horizontal Wire.	Correction of Clock.
		h. m. s.	h. m. s.	s.
1	Sun first Limb	5 10 1·0	....	– 23·69
2	Second and lower Cusp	5 10 37·5	....	– 23·69
3	Sun first Limb	5 13 37·0	....	– 23·70
4	Second and lower Cusp	5 14 22·0	....	– 23·70
5	Sun second Limb	5 16 1·7	....	– 23·71
6	Sun first Limb	5 17 15·5	....	– 23·71
7	Second and lower Cusp	5 18 8·0	....	– 23·72
8	Sun second Limb	5 19 40·5	....	– 23·72
9	Sun lower Limb	....	5 22 36·0	– 23·73
10	First and upper Cusp	....	5 24 58·0	– 23·74
11	First and upper Cusp	....	5 25 50·0	– 23·74
12	Sun upper Limb	....	5 29 2·2	– 23·75

No. of Observation.	OBJECT OBSERVED.	Transit over Vertical Wire.	Transit over Horizontal Wire.	Correction of Clock.
		h. m. s.	h. m. s.	s.
13	First and upper Cusp	5 32 34·2	....	– 23·77
14	Second and lower Cusp	5 33 51·0	....	– 23·77
15	Sun second Limb	5 35 2·0	....	– 23·77
16	First and upper Cusp	....	5 37 23·0	– 23·78
17	Sun upper Limb	....	5 40 0·7	– 23·79
18	First and upper Cusp	5 42 29·6	....	– 23·79
19	Second and lower Cusp	5 43 59·0	....	– 23·80
20	Sun second Limb	5 44 59·0	....	– 23·80
21	Moon upper Limb	....	5 47 34·6	– 23·81
22	Sun upper Limb	....	5 49 41·0	– 23·82
23	First and upper Cusp	5 51 47·0	....	– 23·83
24	Moon second Limb	5 53 29·0	....	– 23·83
25	Sun second Limb	5 54 17·2	....	– 23·83
26	First and upper Cusp	....	5 57 50·0	– 23·85
27	Moon upper Limb	....	5 58 8·5	– 23·85
28	Sun upper Limb	....	5 59 45·0	– 23·85
29	First and upper Cusp	6 1 54·3	....	– 23·86
30	Moon second Limb	6 3 49·0	....	– 23·87
31	Sun second Limb	6 4 25·0	....	– 23·87
32	First and upper Cusp	....	6 6 44·0	– 23·88
33	Moon upper Limb	....	6 7 14·6	– 23·88
34	Sun upper Limb	....	6 8 27·0	– 23·88
35	Second and lower Cusp	6 9 57·6	....	– 23·89
36	Moon second Limb	6 10 5·0	....	– 23·89
37	Sun second Limb	6 10 34·0	....	– 23·89
38	First and upper Cusp	....	6 12 27·4	– 23·89
39	Moon upper Limb	....	6 13 8·0	– 23·89
40	Sun upper Limb	....	6 14 6·0	– 23·90
41	Second and lower Cusp	6 19 32·0	....	– 23·92
42	Moon second Limb	6 19 45·0	....	– 23·92
43	Sun second Limb	6 20 2·7	....	– 23·92
44	First and upper Cusp	....	6 21 50·7	– 23·92
45	Moon upper Limb	....	6 22 57·6	– 23·93
46	Sun upper Limb	....	6 23 31·5	– 23·93
47	Sun first Limb	6 37 42·4	....	– 23·98
48	Moon first Limb	6 37 54·0	....	– 23·98
49	First and upper Cusp	6 38 43·7	....	– 23·98
50	Second and lower Cusp	6 40 13·4	....	– 23·98
51	Sun lower Limb	....	6 41 45·0	– 23·99
52	Moon lower Limb	....	6 42 10·6	– 23·99
53	Second and lower Cusp	....	6 42 58·0	– 23·99
54	Sun first Limb	6 44 55·0	....	– 24·00
55	Moon first Limb	6 45 14·8	....	– 24·00
56	First and upper Cusp	6 45 37·4	....	– 24·00
57	Second and lower Cusp	6 47 27·2	....	– 24·00

No. of Observation.	OBJECT OBSERVED.	Transit over Vertical Wire.	Transit over Horizontal Wire.	Correction of Clock.
		h. m. s.	h. m. s.	s.
58	Sun lower Limb	....	6 49 44·5	– 24·01
59	Moon lower Limb	....	6 50 29·0	– 24·01
60	Second and lower Cusp	....	6 51 2·0	– 24·02
61	First and upper Cusp	....	6 53 36·3	– 24·03
62	Sun first Limb	6 56 34·0	....	– 24·04
63	Moon first Limb	6 57 7·4	....	– 24·04
64	First and upper Cusp	6 57 16·7	....	– 24·04
65	Second and lower Cusp	6 59 11·2	....	– 24·04
66	Sun lower Limb	....	7 1 21·0	– 24·05
67	Moon lower Limb	....	7 2 33·0	– 24·06
68	Second and lower Cusp	....	7 2 53·0	– 24·06
69	Sun first Limb	7 4 29·0	....	– 24·06
70	Moon first Limb	7 5 12·0	....	– 24·06
71	First and upper Cusp	7 5 16·5	....	– 24·06
72	Sun lower Limb	....	7 6 47·5	– 24·07
73	Moon lower Limb	....	7 8 12·3	– 24·07
74	Second and lower Cusp	....	7 8 27·3	– 24·07
75	Sun first Limb	7 10 41·0	....	– 24·08
76	Moon first Limb	7 11 31·0	....	– 24·08
77	First and upper Cusp	7 11 33·3	....	– 24·08
78	Second and lower Cusp	7 13 22·3	....	– 24·09
79	Sun lower Limb	....	7 16 23·7	– 24·10
80	Moon lower Limb	....	7 18 10·6	– 24·10
81	Second and lower Cusp	....	7 18 18·5	– 24·10
82	First and upper Cusp	....	7 20 17·3	– 24·11
83	Sun first Limb	7 22 4·2	....	– 24·12
84	First and upper Cusp	7 23 8·0	....	– 24·12
85	Second and lower Cusp	7 24 47·5	....	– 24·13
86	Sun lower Limb	....	7 26 53·6	– 24·13
87	Moon lower Limb	....	7 29 5·0	– 24·14
88	Second and lower Cusp	....	7 29 7·2	– 24·14
89	First and upper Cusp	....	7 30 47·6	– 24·15
90	Sun first Limb	7 33 5·0	....	– 24·15
91	First and upper Cusp	7 34 23·3	....	– 24·16
92	Second and lower Cusp	7 35 46·5	....	– 24.16
93	Sun second Limb	7 35 49·2	....	– 24·16
94	Second and lower Cusp	....	7 40 50·5	– 24·18
95	First and upper Cusp	....	7 42 4·0	– 24·18
96	First and upper Cusp	7 43 41·0	....	– 24·19
97	Second and lower Cusp	7 44 42·4	....	– 24·19
98	Sun second Limb	7 44 51·0	....	– 24·19
99	Second and lower Cusp	....	7 46 18·3	– 24·19
100	First and upper Cusp	....	7 47 14·4	– 24·20
101	Sun upper Limb	....	7 47 17·4	– 24·20

From these observations the corrections of the Moon's Right Ascension and Declination, and of the semidiameters of the Sun and Moon, given in the Nautical Almanac, are to be investigated, the Sun's place being supposed correct.

Let A denote the apparent Azimuth of the Sun's centre.
B .... apparent Altitude of the Sun's centre.
(A) .... apparent Azimuth of the Sun's limb.
(B) .... apparent Altitude of the Sun's limb.
ϱ .... Sun's semidiameter.
A' .... true Azimuth of the Moon's centre.
B' .... true Altitude of the Moon's centre.
A'' .... apparent Azimuth of the Moon's centre.
B'' .... apparent Altitude of the Moon's centre.
(A'') .... apparent Azimuth of the Moon's limb.
(B'') .... apparent Altitude of the Moon's limb.
π .... Moon's equatorial horizontal parallax.
ϱ' .... Moon's apparent semidiameter.
A''' .... Azimuth of Cusp.
B''' .... Altitude of Cusp.
r .... Earth's radius for the parallel of Edinburgh.

The Azimuths are reckoned from the south meridian westward. The ratio of the Earth's axes adopted is $= 300 : 299$; whence the logarithm of r is 9·999008, and the reduction of latitude 10′ 40″.

The longitude being assumed to be $12^{m}\,43^{s}\cdot 6$ west of Greenwich, the true Right Ascensions and Declinations of the Sun and Moon were interpolated from the Almanac for every twelve minutes of sidereal time, during the continuance of the observations. The Moon's equatorial horizontal parallax and horizontal semidiameter were interpolated for every hour of sidereal time. The Sun's semidiameter 15′ 49″·9, and horizontal parallax 8″·5, are constant during the Eclipse.

The true Azimuths and Altitudes of the centres of the Sun and Moon were calculated by Spherical Trigonometry for every twelve minutes of sidereal time, the adopted latitude being 55° 57′ 23″·2 north.

The Sun's parallax in Azimuth is insensible;—the parallax in Altitude is equal to 8″·5 multiplied by the cosine of the Altitude.

For the Moon's apparent Azimuth and Altitude we have—

$$A'' = A' + 640''\, r \sin \pi \sin A' \sec B'.$$

$$\tan (B' - B'') = \frac{r \sin \pi \cos (B' + 640'' \cos A')}{1 - r \sin \pi \sin (B' + 640'' \cos A')}.$$

The Moon's apparent semidiameter is equal to the horizontal semidiameter multiplied by the cosine of the apparent Altitude, and by the secant of the true.

The following Tables contain the quantities determined in the manner now explained.

SUN.

Edinburgh Sidereal Time.	True Right Ascension.	True Declination.	Apparent Azimuth, *A*.	Apparent Altitude, *B*.
h. *m.*	° ′ ″	° ′ ″	° ′ ″	° ′ ″
5 0	52 19 34·7	18 57 34·3	33 57 54·4	49 15 52·7
5 12	52 20 4·3	18 57 41·3	37 59 31·9	48 16 56·6
5 24	52 20 33·9	18 57 48·3	41 53 10·2	47 12 32·2
5 36	52 21 3·4	18 57 55·3	45 38 49·4	46 3 7·6
5 48	52 21 33·0	18 58 2·3	49 16 38·2	44 49 11·0
6 0	52 22 2·5	18 58 9·3	52 46 51·8	43 31 9·2
6 12	52 22 32·1	18 58 16·3	56 9 50·6	42 9 28·3
6 24	52 23 1·6	18 58 23·3	59 25 58·4	40 44 32·3
6 36	52 23 31·2	18 58 30·3	62 35 41·1	39 16 44·1
6 48	52 24 0·8	18 58 37·3	65 39 26·1	37 46 25·1
7 0	52 24 30·3	18 58 44·3	68 37 41·3	36 13 55·1
7 12	52 24 59·9	18 58 51·3	71 30 54·3	34 39 32·7
7 24	52 25 29·4	18 58 58·3	74 19 32·5	33 3 35·1
7 36	52 25 59·0	18 59 5·3	77 4 2·3	31 26 18·3
7 48	52 26 28·6	18 59 12·3	79 44 49·2	29 47 57·9

MOON.

Edinburgh Sidereal Time.	True Right Ascension.	True Declination.	True Azimuth, *A′*.	True Altitude, *B′*.	Apparent Azimuth, *A″*.	Apparent Altitude, *B″*.
h. *m.*	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″	° ′ ″
5 0	52 0 16·3	19 18 10·5	34 34 52·6	49 29 18·4	34 35 1·4	48 53 43·4
5 12	52 6 16·6	19 20 10·5	38 30 13·8	48 33 10·6	38 30 23·3	47 56 55·1
5 24	52 12 17·0	19 22 10·3	42 18 3·9	47 31 53·1	42 18 14·0	46 54 54·0
5 36	52 18 17·5	19 24 10·0	45 58 22·3	46 25 52·3	45 58 32·8	45 48 7·1
5 48	52 24 18·2	19 26 9·4	49 31 15·6	45 15 33·7	49 31 26·5	44 37 0·4
6 0	52 30 19·0	19 28 8·6	52 56 57·3	44 1 22·6	52 57 8·5	43 21 59·6
6 12	52 36 19·9	19 30 7·5	56 15 45·3	42 43 42·9	56 15 56·7	42 3 29·2
6 24	52 42 20·9	19 32 6·3	59 28 0·6	41 22 57·0	59 28 12·2	40 41 51·8
6 36	52 48 22·0	19 34 4·9	62 34 6·6	39 59 26·4	62 34 18·3	39 17 29·6
6 48	52 54 23·3	19 36 3·2	65 34 28·0	38 33 31·1	65 34 39·8	37 50 42·7
7 0	53 0 24·7	19 38 1·4	68 29 30·4	37 5 29·8	68 29 42·2	36 21 50·4
7 12	53 6 26·2	19 39 59·3	71 19 38·9	35 35 39·8	71 19 50·7	34 51 10·2
7 24	53 12 27·8	19 41 57·0	74 5 18·9	34 4 17·5	74 5 30·6	33 18 58·7
7 36	53 18 29·6	19 43 54·5	76 46 55·0	32 31 38·3	76 47 6·7	31 45 31·8
7 48	53 24 31·4	19 45 51·8	79 24 50·7	30 57 56·1	79 25 2·3	30 11 3·4

MOON.

Edinburgh Sidereal Time.	Equatorial horizontal Parallax, π.	Horizontal Semidiameter.	Apparent Semidiameter, ϱ'.
h. m.	′ ″	′ ″	′ ″
5 0	54 24·4	14 49·6	15 0·3
6 0	54 23·7	14 49·4	14 59·2
7 0	54 23·0	14 49·2	14 57·7
8 0	54 22·4	14 49·0	14 55·8

From these Tables the requisite quantities were interpolated for the various times of observation, fourth differences being employed for the apparent Azimuth and Altitude of the Sun and Moon.

The apparent Azimuths and Altitudes of the limbs of the Sun and Moon were obtained from these formulæ;

$$(A) = A \pm \varrho \sec B \quad \cdots\cdots\cdots \quad (1.)$$

$$(B) = B \pm \varrho \quad \cdots\cdots\cdots \quad (2.)$$

$$(A'') = A'' \pm \varrho' \sec B'' \quad \cdots\cdots\cdots \quad (3.)$$

$$(B'') = B'' \pm \varrho' \quad \cdots\cdots\cdots \quad (4.)$$

(The sign + for the first and upper limbs; − for the second and lower.)

The Azimuth and Altitude, A''' and B''', of a Cusp were calculated from the following formulæ;

$$\frac{B'' - B + \tfrac{1}{2}(A'' - A)^2 \sin 1'' \cos B'' \sin B}{(A'' - A) \cos B''} = \tan M.$$

$$\frac{(A'' - A) \cos B''}{\cos M} = \frac{B'' - B + \tfrac{1}{2}(A'' - A)^2 \sin 1'' \cos B'' \sin B}{\sin M} = \delta.$$

In the plane triangle whose sides are ϱ, ϱ', and δ, N is the angle opposite ϱ'.

$$A''' = A + \varrho \cos (M \pm N) \sec B''' \quad \cdots\cdots\cdots \quad (5.)$$

$$B''' = B + \varrho \sin (M \pm N) - \tfrac{1}{2}(A''' - A)^2 \sin 1'' \cos B''' \sin B \quad \cdots\cdots\cdots \quad (6.)$$

(The two signs give the places of both Cusps.)

The corrections of the calculated Azimuths and Altitudes of the Limbs and Cusps, arising from the corrections of the Moon's Right Ascension and Declination, and of the semidiameters of the Sun and Moon, were obtained in the following manner:

Let dA'', dB'' denote the corrections of the Moon's apparent Azimuth and Altitude, $d\varrho$ and $d\varrho'$, the corrections of the semidiameters of the Sun and Moon, $d(A)$, $d(B)$, $d(A'')$ and $d(B'')$, the corrections of the Azimuths and Altitudes of the limbs of the Sun and Moon, dA''' and dB''', the corrections of the Azimuth and Altitude of the Cusp, and dR and dD, the corrections of the Moon's apparent Right Ascension and Declination.

Then,

$$d(A) = \pm d\varrho \sec B \quad \cdots\cdots\cdots \quad (7.)$$

$$d(B) = \pm d\varrho \quad \cdots\cdots\cdots \quad (8.)$$

$$d(A'') = dA'' \pm d\varrho' \sec B''$$

$$d(B'') = dB'' \pm d\varrho'$$

(The sign + for the first and upper limbs; − for the second and lower.)

And, by the formulæ investigated by Mr AIRY, (*Memoirs of Royal Astronomical Society*, vol viii. pp. 127–8), putting

$$P = \frac{\varrho}{(A''' - A)\cos B \cos B'''},$$

$$Q = \frac{B''' - B}{(A''' - A)\cos B \cos B'''},$$

$$p = \frac{\varrho'}{(A'' - A''')\cos B'' \cos B'''},$$

$$q = \frac{B''' - B''}{(A'' - A''')\cos B'' \cos B'''},$$

$$\mathrm{d}A''' = \frac{Q}{Q+q}\,\mathrm{d}A'' - \frac{Qq}{Q+q}\,\mathrm{d}B'' + \frac{Pq}{Q+q}\,\mathrm{d}\varrho - \frac{Qp}{Q+q}\,\mathrm{d}\varrho'.$$

$$\mathrm{d}B''' = -\frac{1}{Q+q}\,\mathrm{d}A'' + \frac{q}{Q+q}\,\mathrm{d}B'' + \frac{P}{Q+q}\,\mathrm{d}\varrho + \frac{p}{Q+q}\,\mathrm{d}\varrho'.$$

But $\mathrm{d}A'' = P'\mathrm{d}R + Q'\mathrm{d}D$:

$\mathrm{d}B'' = R'\mathrm{d}R + S'\mathrm{d}D$:

P', Q', R', and S' denoting factors for converting small differences of the Moon's apparent Right Ascension and Declination into differences of apparent Azimuth and Altitude.

Therefore, by substitution,

$$\mathrm{d}(A'') = P'\mathrm{d}R + Q'\mathrm{d}D \pm \mathrm{d}\varrho' \sec B'' \quad \text{(9.)}$$

$$\mathrm{d}(B'') = R'\mathrm{d}R + S'\mathrm{d}D \pm \mathrm{d}\varrho' \quad \text{(10.)}$$

$$\mathrm{d}A''' = \frac{QP' - QR'q}{Q+q}\,\mathrm{d}R + \frac{QQ' - QS'q}{Q+q}\,\mathrm{d}D + \frac{Pq}{Q+q}\,\mathrm{d}\varrho - \frac{Qp}{Q+q}\,\mathrm{d}\varrho' \quad \text{(11.)}$$

$$\mathrm{d}B''' = \frac{R'q - P'}{Q+q}\,\mathrm{d}R + \frac{S'q - Q'}{Q+q}\,\mathrm{d}D + \frac{P}{Q+q}\,\mathrm{d}\varrho + \frac{p}{Q+q}\,\mathrm{d}\varrho' \quad \text{(12.)}$$

The Factors P', Q', R', and S' are contained in the annexed Table, and were obtained by interpolation for intermediate times:

Edinburgh Sidereal Time.	P'.	Q'.	R'.	S'.
h. m.				
5 0	− 1·357	+ 0·511	+ 0·318	+ 0·942
5 24	− 1·271	+ 0·583	+ 0·377	+ 0·917
5 48	− 1·187	+ 0·632	+ 0·426	+ 0·893
6 12	− 1·109	+ 0·663	+ 0·466	+ 0·870
6 36	− 1·040	+ 0·679	+ 0·497	+ 0·851
7 0	− 0·980	+ 0·684	+ 0·521	+ 0·834
7 24	− 0·929	+ 0·682	+ 0·539	+ 0·822
7 48	− 0·888	+ 0·674	+ 0·550	+ 0·813

The Azimuths and Altitudes of the limbs of the Sun and Moon and of the Cusps were calculated for the various times of observation by the formulæ (1), (2), (3), (4), (5), and (6), and the corrections arising from the corrections of the assumed elements, by the formulæ (7), (8), (9), (10), (11), and (12). Each observation gives an expression of this form,

$$A_n = A_0 + F\mathrm{d}R + G\mathrm{d}D + H\mathrm{d}\varrho + K\mathrm{d}\varrho';$$

A_n denoting an unknown quantity, being the Azimuth or Altitude to which the instrument was pointed, A_0 the calculated Azimuth or Altitude, and F, G, H, and K the numerical values of the coefficients of the corrections of the elements. The solution of the equations by the method of minimum squares gives the values of $\mathrm{d}R$, $\mathrm{d}D$, $\mathrm{d}\varrho$ and $\mathrm{d}\varrho'$.

The equations given by the observations of Azimuth are solved separately from those given by the observations of Altitude; for, owing to the greater motions in Azimuth, the observations of Azimuth have a greater probable error.

The following are the equations obtained from the observations of Azimuth; A_1, A_2, A_3, &c. denoting the various Azimuths to which the instrument was directed.

No. of Observation.	Equations.							
		°	′	″				
1	A_1 =	37	36	9·7	………	………	+ 1·51 $d\rho$	………
2	A_1 =	37	35	52·4	− 2·13 dR	− 0·17 dD	− 1·11	− 2·26 $d\rho'$
3	A_2 =	38	47	25·6	………	………	+ 1·50	………
4	A_2 =	38	47	15·2	− 1·73	+ 0·08	− 0·65	− 1·83
5	A_2 =	38	47	28·2	………	………	− 1·49	………
6	A_3 =	39	58	46·7	………	………	+ 1·49	………
7	A_3 =	39	58	45·9	− 1·54	+ 0·24	− 0·42	− 1·65
8	A_3 =	39	58	43·4	………	………	− 1·48	………
13	A_4 =	44	50	39·8	+ 0·03	+ 0·08	+ 1·45	+ 0·08
14	A_4 =	44	50	48·8	− 1·23	+ 0·63	+ 0·02	− 1·44
15	A_4 =	44	50	43·5	………	………	− 1·44	………
18	A_5 =	47	52	58·8	− 0·01	− 0·06	+ 1·44	− 0·06
19	A_5 =	47	53	1·5	− 1·15	+ 0·85	+ 0·23	− 1·48
20	A_5 =	47	53	0·3	………	………	− 1·42	………
23	A_6 =	50	38	39·0	− 0·02	− 0·25	+ 1·52	− 0·25
24	A_6 =	50	38	37·2	− 1·17	+ 0·64	………	− 1·39
25	A_6 =	50	38	39·8	………	………	− 1·39	………
29	A_7 =	53	33	56·0	+ 0·04	− 0·47	+ 1·69	− 0·47
30	A_7 =	53	33	58·8	− 1·14	+ 0·65	………	− 1·37
31	A_7 =	53	33	57·5	………	………	− 1·37	………
35	A_8 =	55	18	8·4	− 1·15	+ 1·86	+ 1·20	− 2·22
36	A_8 =	55	17	51·2	− 1·12	+ 0·66	………	− 1·35
37	A_8 =	55	17	53·3	………	………	− 1·35	………
41	A_9 =	57	54	53·7	− 1·32	+ 3·15	+ 2·50	− 3·45
42	A_9 =	57	54	32·5	− 1·09	+ 0·67	………	− 1·33
43	A_9 =	57	54	31·2	………	………	− 1·33	………
47	A_{10} =	63	16	23·1	………	………	+ 1·29	………
48	A_{10} =	63	16	27·3	− 1·04	+ 0·68	………	+ 1·29
49	A_{10} =	63	17	0·4	+ 1·57	+ 9·64	− 9·38	+ 9·79
50	A_{10} =	63	16	7·3	+ 1·23	− 2·69	− 4·13	+ 2·99
54	A_{11} =	65	6	50·0	………	………	+ 1·27	………
55	A_{11} =	65	6	51·4	− 1·02	+ 0·68	………	+ 1·27
56	A_{11} =	65	7	6·5	− 0·83	+ 3·68	− 3·00	+ 3·78
57	A_{11} =	65	6	38·2	+ 0·35	− 1·39	− 2·52	+ 1·43
62	A_{12} =	68	1	3·2	………	………	+ 1·25	………
63	A_{12} =	68	1	4·9	− 0·99	+ 0·68	………	+ 1·25
64	A_{12} =	68	1	11·3	− 0·90	+ 1·72	− 1·04	+ 1·97
65	A_{12} =	68	1	0·0	+ 0·05	− 0·55	− 1·65	+ 0·57
69	A_{13} =	69	56	39·2	………	………	+ 1·23	………
70	A_{13} =	69	56	44·6	− 0·97	+ 0·68	………	+ 1·23
71	A_{13} =	69	56	46·3	− 0·88	+ 1·25	− 0·57	+ 1·56
75	A_{14} =	71	25	41·9	………	………	+ 1·22	………
76	A_{14} =	71	25	42·7	− 0·96	+ 0·68	………	+ 1·22
77	A_{14} =	71	25	46·2	− 0·88	+ 1·01	− 0·34	+ 1·38
78	A_{14} =	71	25	35·1	− 0·02	− 0·14	− 1·28	+ 0·14
83	A_{15} =	74	6	4·0	………	………	+ 1·20	………
84	A_{15} =	74	6	6·7	− 0·92	+ 0·72	− 0·04	+ 1·21
85	A_{15} =	74	6	6·5	+ 0·03	+ 0·08	− 1·17	− 0·08
90	A_{16} =	76	37	34·4	………	………	+ 1·18	………
91	A_{16} =	76	37	34·2	− 1·02	+ 0·49	+ 0·22	+ 1·19
92	A_{16} =	76	37	35·3	+ 0·15	+ 0·26	− 1·19	− 0·31
93	A_{16} =	76	37	34·1	………	………	− 1·17	………
96	A_{17} =	78	39	18·3	− 1·25	+ 0·29	+ 0·54	+ 1·35
97	A_{17} =	78	39	16·5	+ 0·42	+ 0·46	− 1·40	− 0·64
98	A_{17} =	78	39	14·5	………	………	− 1·16	………

Resolving these equations by the method of minimum squares, the same weight being assigned to each, and eliminating A_1, A_2, A_3, &c. the values of which are not required, we obtain the four equations,

$$0 = -4''{\cdot}846 + 22{\cdot}2948\,\mathrm{d}R - 4{\cdot}2177\,\mathrm{d}D - 15{\cdot}4287\,\mathrm{d}\varrho + 17{\cdot}1305\,\mathrm{d}\varrho' ;$$

$$0 = +518''{\cdot}237 - 4{\cdot}2177\,\mathrm{d}R + 114{\cdot}0952\,\mathrm{d}D - 54{\cdot}0534\,\mathrm{d}\varrho + 63{\cdot}0083\,\mathrm{d}\varrho' ;$$

$$0 = -136''{\cdot}843 - 15{\cdot}4287\,\mathrm{d}R - 54{\cdot}0534\,\mathrm{d}D + 141{\cdot}3732\,\mathrm{d}\varrho - 76{\cdot}2427\,\mathrm{d}\varrho' ;$$

$$0 = +264''{\cdot}485 + 17{\cdot}1305\,\mathrm{d}R + 63{\cdot}0083\,\mathrm{d}D - 76{\cdot}2427\,\mathrm{d}\varrho + 93{\cdot}9917\,\mathrm{d}\varrho'.$$

Whence, by elimination,

$\mathrm{d}R = -1''{\cdot}53$;	Weight, ·········	25·83 observations
$\mathrm{d}D = -5{\cdot}13$;	——— ·········	58·78 ———
$\mathrm{d}\varrho = -1{\cdot}20$;	——— ·········	79·11 ———
$\mathrm{d}\varrho' = -0{\cdot}07$;	——— ·········	32·63 ———

These values being substituted in the 55 equations obtained after A_1, A_2, A_3, &c. were eliminated, the sum of the squares of the residual errors is 363·21 ; whence the probable error of one observation of Azimuth is,

$$= 0{\cdot}6745\sqrt{\frac{363{\cdot}21}{55}} = 1''{\cdot}73.$$

The probable error of the value

$$\text{of } \mathrm{d}R = \frac{1''{\cdot}73}{\sqrt{25{\cdot}83}} = 0''{\cdot}34 ;$$

$$\text{of } \mathrm{d}D = \frac{1''{\cdot}73}{\sqrt{58{\cdot}78}} = 0''{\cdot}23 ;$$

$$\text{of } \mathrm{d}\varrho = \frac{1''{\cdot}73}{\sqrt{79{\cdot}11}} = 0''{\cdot}20 ;$$

$$\text{of } \mathrm{d}\varrho' = \frac{1''{\cdot}73}{\sqrt{32{\cdot}63}} = 0''{\cdot}30.$$

The following are the equations obtained from the observations of Altitude, B_1, B_2, B_3, &c. denoting the various Altitudes to which the instrument was directed ;

No. of Observation.	EQUATIONS.					
		° ′ ″				
9	B_1	= 47 6 40·3 ·········	·········	·········	− 1·00 $\mathrm{d}\varrho$	·········
10	B_1	= 47 6 46·3	+ 0·46 $\mathrm{d}R$	+ 0·90 $\mathrm{d}D$	+ 0·09	+ 1 ·02 $\mathrm{d}\varrho'$
11	B_2	= 47 2 6·5	+ 0·44	+ 0·90	+ 0·07	+ 1·01
12	B_2	= 47 2 5·5 ·········	·········	·········	+ 1·00	·········
16	B_3	= 45 57 13·5	+ 0·27	+ 0·97	− 0·16	+ 1·01
17	B_3	= 45 57 8·3 ·········	·········	·········	+ 1·00	·········
21	B_4	= 44 56 59·3	+ 0·42	+ 0·89	·········	+ 1·00
22	B_4	= 44 56 50·3 ·········	·········	·········	+ 1·00	·········
26	B_5	= 43 51 20·9	− 0·04	+ 1·30	− 0·66	+ 1·30
27	B_5	= 43 51 21·6	+ 0·44	+ 0·88	·········	+ 1·00
28	B_5	= 43 51 17·5 ·········	·········	·········	+ 1·00	·········
32	B_6	= 42 52 38·1	− 0·27	+ 1·62	− 1·07	+ 1·65
33	B_6	= 42 52 35·8	+ 0·46	+ 0·88	·········	+ 1·00
34	B_6	= 42 52 33·3 ·········	·········	·········	+ 1·00	·········
38	B_7	= 42 13 37·2	− 0·53	+ 1·97	− 1·52	+ 2·05
39	B_7	= 42 13 33·2	+ 0·47	+ 0·87	·········	+ 1·00
40	B_7	= 42 13 26·9 ·········	·········	·········	+ 1·00	·········

No. of Observation.	EQUATIONS.				
	° ′ ″				
44	$B_8 = 41\ \ 6\ \ 49{\cdot}7$	$-\ 1{\cdot}79\,\mathrm{d}R$	$+\ 3{\cdot}26\,\mathrm{d}D$	$-\ 3{\cdot}39\,\mathrm{d}\varrho$	$+\ 3{\cdot}77\,\mathrm{d}\varrho'$
45	$B_8 = 41\ \ 6\ \ 46{\cdot}8$	$+\ 0{\cdot}48$	$+\ 0{\cdot}86$	....	$+\ 1{\cdot}00$
46	$B_8 = 41\ \ 6\ \ 39{\cdot}4$	....	....	$+\ 1{\cdot}00$	....
51	$B_9 = 38\ 20\ 55{\cdot}6$	....	....	$-\ 1{\cdot}00$	....
52	$B_9 = 38\ 21\ \ 1{\cdot}6$	$+\ 0{\cdot}50$	$+\ 0{\cdot}85$	....	$-\ 1{\cdot}00$
53	$B_9 = 38\ 21\ 15{\cdot}7$	$-\ 1{\cdot}32$	$+\ 3{\cdot}69$	$+\ 3{\cdot}43$	$-\ 3{\cdot}94$
58	$B_{10} = 37\ 20\ 20{\cdot}9$	....	....	$-\ 1{\cdot}00$	....
59	$B_{10} = 37\ 20\ 27{\cdot}5$	$+\ 0{\cdot}51$	$+\ 0{\cdot}84$	....	$-\ 1{\cdot}00$
60	$B_{10} = 37\ 20\ 37{\cdot}8$	$-\ 0{\cdot}41$	$+\ 2{\cdot}17$	$+\ 1{\cdot}65$	$-\ 2{\cdot}21$
61	$B_{10} = 37\ 20\ 20{\cdot}6$	$+\ 0{\cdot}41$	$-\ 0{\cdot}93$	$+\ 1{\cdot}77$	$-\ 1{\cdot}03$
66	$B_{11} = 35\ 50\ 41{\cdot}2$	....	....	$-\ 1{\cdot}00$	....
67	$B_{11} = 35\ 50\ 46{\cdot}0$	$+\ 0{\cdot}52$	$+\ 0{\cdot}83$	....	$-\ 1{\cdot}00$
68	$B_{11} = 35\ 50\ 50{\cdot}2$	$-\ 0{\cdot}01$	$+\ 1{\cdot}44$	$+\ 0{\cdot}83$	$-\ 1{\cdot}44$
72	$B_{12} = 35\ \ 8\ \ 2{\cdot}6$	....	....	$-\ 1{\cdot}00$	....
73	$B_{12} = 35\ \ 8\ \ 6{\cdot}2$	$+\ 0{\cdot}53$	$+\ 0{\cdot}83$	....	$-\ 1{\cdot}00$
74	$B_{12} = 35\ \ 8\ \ 9{\cdot}4$	$+\ 0{\cdot}09$	$+\ 1{\cdot}27$	$+\ 0{\cdot}63$	$-\ 1{\cdot}27$
79	$B_{13} = 33\ 51\ 56{\cdot}5$	....	....	$-\ 1{\cdot}00$	....
80	$B_{13} = 33\ 52\ \ 1{\cdot}4$	$+\ 0{\cdot}53$	$+\ 0{\cdot}82$	....	$-\ 1{\cdot}00$
81	$B_{13} = 33\ 52\ \ 1{\cdot}5$	$+\ 0{\cdot}24$	$+\ 1{\cdot}06$	$+\ 0{\cdot}39$	$-\ 1{\cdot}09$
82	$B_{13} = 33\ 51\ 56{\cdot}1$	$+\ 0{\cdot}20$	$-\ 0{\cdot}17$	$+\ 1{\cdot}06$	$-\ 0{\cdot}27$
86	$B_{14} = 32\ 27\ 39{\cdot}5$	....	....	$-\ 1{\cdot}00$	....
87	$B_{14} = 32\ 27\ 42{\cdot}8$	$+\ 0{\cdot}54$	$+\ 0{\cdot}82$	....	$-\ 1{\cdot}00$
88	$B_{14} = 32\ 27\ 42{\cdot}3$	$+\ 0{\cdot}38$	$+\ 0{\cdot}91$	$+\ 0{\cdot}19$	$-\ 0{\cdot}99$
89	$B_{14} = 32\ 27\ 39{\cdot}8$	$+\ 0{\cdot}09$	$-\ 0{\cdot}04$	$+\ 0{\cdot}99$	$-\ 0{\cdot}11$
94	$B_{15} = 30\ 55\ 46{\cdot}0$	$+\ 0{\cdot}59$	$+\ 0{\cdot}80$	$-\ 0{\cdot}05$	$-\ 1{\cdot}02$
95	$B_{15} = 30\ 55\ 44{\cdot}9$	$-\ 0{\cdot}11$	$+\ 0{\cdot}03$	$+\ 1{\cdot}05$	$+\ 0{\cdot}12$
99	$B_{16} = 30\ 12\ 58{\cdot}7$	$+\ 0{\cdot}79$	$+\ 0{\cdot}79$	$-\ 0{\cdot}25$	$-\ 1{\cdot}14$
100	$B_{16} = 30\ 12\ 53{\cdot}7$	$-\ 0{\cdot}32$	$+\ 0{\cdot}04$	$+\ 1{\cdot}20$	$+\ 0{\cdot}34$
101	$B_{16} = 30\ 12\ 57{\cdot}5$	....	....	$+\ 1{\cdot}00$	....

Resolving these equations by the method of minimum squares, the same weight being assigned to each, and eliminating B_1, B_2, B_3, &c. the values of which are not required, we obtain the four equations,

$$0 = -\ \ 22''{\cdot}055 + 7{\cdot}9794\,\mathrm{d}R - \ 6{\cdot}4373\,\mathrm{d}D + \ 0{\cdot}8450\,\mathrm{d}\varrho - \ 2{\cdot}3632\,\mathrm{d}\varrho';$$

$$0 = +132''{\cdot}689 - 6{\cdot}4373\,\mathrm{d}R + 28{\cdot}6480\,\mathrm{d}D - \ 2{\cdot}9632\,\mathrm{d}\varrho - \ 2{\cdot}4390\,\mathrm{d}\varrho';$$

$$0 = +\ \ 25''{\cdot}796 + 0{\cdot}8450\,\mathrm{d}R - \ 2{\cdot}9632\,\mathrm{d}D + 44{\cdot}8401\,\mathrm{d}\varrho - 29{\cdot}0287\,\mathrm{d}\varrho';$$

$$0 = -\ \ 37''{\cdot}470 - 2{\cdot}3632\,\mathrm{d}R - \ 2{\cdot}4390\,\mathrm{d}D - 29{\cdot}0287\,\mathrm{d}\varrho + 30{\cdot}5133\,\mathrm{d}\varrho'.$$

Whence, by elimination,

$\mathrm{d}R = -1''{\cdot}30$;	Weight 7·43 observations
$\mathrm{d}D = -5{\cdot}06$;	——— 20·35 ———
$\mathrm{d}\varrho = -1{\cdot}09$;	——— 15·13 ———
$\mathrm{d}\varrho' = -0{\cdot}31$;	——— 9·86 ———

These values being substituted in the 46 equations obtained after B_1, B_2, B_3, &c. were eliminated, the sum of the squares of the residual errors is 65·96; whence the probable error of one observation of Altitude is

$$= 0{\cdot}6745\sqrt{\frac{65{\cdot}96}{46}} = 0''{\cdot}81.$$

The probable error of the latter value

$$\text{of}\quad dR = \frac{0''{\cdot}81}{\sqrt{7{\cdot}43}} = 0''{\cdot}30\,;$$

$$\text{of}\quad dD = \frac{0''{\cdot}81}{\sqrt{20{\cdot}35}} = 0''{\cdot}18\,;$$

$$\text{of}\quad d\varrho = \frac{0''{\cdot}81}{\sqrt{15{\cdot}13}} = 0''{\cdot}12\,;$$

$$\text{of}\quad d\varrho' = \frac{0''{\cdot}81}{\sqrt{9{\cdot}86}} = 0''{\cdot}26.$$

Assigning to the two values of dR, dD, $d\varrho$, and $d\varrho'$ weights proportional to the reciprocals of the squares of their probable errors, we obtain the following values, derived from the whole of the observations of Azimuth and Altitude; viz.

$dR = -1''{\cdot}40$; probable error $0''{\cdot}22$;
$dD = -5{\cdot}09$; ———————— $0{\cdot}14$;
$d\varrho = -1{\cdot}14$; ———————— $0{\cdot}14$;
$d\varrho' = -0{\cdot}21$; ———————— $0{\cdot}20$.

It therefore appears that the elements given in the Nautical Almanac are to be corrected as follows; the Moon's Right Ascension to be diminished by $1''{\cdot}4$, the Moon's Declination to be diminished by $5''{\cdot}1$, the Sun's semidiameter to be diminished by $1''{\cdot}1$, and the Moon's semidiameter to be diminished by $0''{\cdot}2$, in order that the observations of Azimuth and Altitude may be satisfied.

After the elements of the Nautical Almanac were thus corrected, the times of the beginning and end of the Eclipse, and of the Annulus were computed, and were found to be,

	Sidereal Time.		
	h.	m.	s.
Beginning of the Eclipse	5	6	9·2
Beginning of the Annulus	6	30	46·2
End of the Annulus	6	34	40·3
End of the Eclipse	7	53	7·5

When these times are compared with those observed, it is seen that the true beginning of the Annulus took place between the times observed of the appearance of the detached portions of the Sun's limb, and the complete formation of the Annulus; and that the true end of the Annulus took place between the times observed of the rupture of the Annulus and the final disappearance of the luminous portions.

It is also found that at $6^h\,30^m\,41^s{\cdot}1$ sidereal time when the detached portions of the Sun's limb appeared, a lunular part of the Moon's disc, having $1''{\cdot}6$ of maximum breadth, was beyond the Sun; that at $6^h\,30^m\,50^s{\cdot}1$, when the Annulus was first seen completely formed, it had a minimum breadth of $1''{\cdot}1$, agreeing with the observation that it was "of sensible breadth at the narrowest part;" that at $6^h\,34^m\,33^s{\cdot}0$ when the Annulus was suddenly broken, its minimum breadth was $2''{\cdot}3$, also agreeing with the observation that it was "still of sensible breadth;" and that at $6^h\,34^m\,44^s{\cdot}0$ when the luminous portions disappeared, a lunular part of the Moon's disc, having $1''{\cdot}2$ of maximum breadth, was beyond the Sun.

Date.	Time by Transit-Clock.	True Sidereal Time.	STAR.	Phenomenon.
1836,	h. m. s.	h. m. s.		
January 12	12 53 56·5	12 54 8·6	α^2 Libræ	Immersion at bright limb
April 28	14 29 21·6	14 29 37·7	γ Virginis (*a*)	Immersion at dark limb
May 26	16 50 13·8	16 51 12·3	θ Virginis	Immersion at dark limb
(*a*) Immersion instantaneous. Star not seen double.				

The first two Occultations were observed with Tulley's Achromatic Telescope; the last was observed with the Telescope of the Altitude and Azimuth Circle.

OBSERVED ECLIPSES OF JUPITER'S SATELLITES.

Date.	Time by Transit-Clock.	True Sidereal Time.	Satellite.	Phenomenon.	Difference from Nautical Almanac.
1836,	h. m. s.	h. m. s.			m. s.
January 14	5 9 41·5	5 9 53·5	I.	Emersion	– 0 5·6
16	6 21 38·5	6 21 50·6	II.	Emersion	– 0 59·1
February 6	6 52 59·9	6 53 11·8	I.	Emersion	– 0 23·2
22	6 14 25·2	6 14 53·6	I.	Emersion	– 0 22·5
April 24	11 12 52·8	11 13 5·7	III.	Immersion	+ 2 25·9

All the Eclipses were observed with Tulley's Achromatic Telescope. For the first four, the magnifying power of 111 was employed; for the last one the power of 77.

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STORAGE